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M. S. E. GOULD

PASSIM

IN his position as editor of the *Lancet* in the middle of the nineteenth century, the indomitable Mr. Wakley was primarily responsible, not only for a challenging policy in medical journalism but also for the institution of reforms in various undesirable features of life in those days. Outstanding among these efforts was the attention he drew to the widespread adulteration of food perpetrated at that time, either in negligent ignorance or wilful intent. In the almost complete absence of legal control over the purity of foodstuffs in 1851, excepting, that is, a few statutes applied significantly enough to beer, bread, tea and coffee, the enterprising and ingenious food purveyor had such scope that Hassall, the director of the first Analytical Commission to be established, discovered from the 3,000 odd samples examined by him over the course of six years that at least 65% of them were adulterated. Over the succeeding century a host of food laws and restrictions have been promulgated, remarkable more for their diversity than for their consistency or ease of enforcement. Today, it is generally taken for granted that conditions are so much better ; an all-powerful and righteous-minded Government is assumed to be both on its guard and active in protecting the health and welfare of the population at large. Yet in fact, a recent examination of 700 chemical agents at present used in food preparation, admittedly in the U.S.A., showed that 246 of them " had not been studied enough from a toxicological angle to satisfy the Food and Drug Administration of that country that they were innocuous." There is little reason to believe that the state of affairs in this country is any more admirable.

Adulteration, to use that term in its widest sense, may come about in a number of ways. Additions and substitutions may be made in a deliberately fraudulent manner, either with harmless although nutritionally less valuable constituents, e.g., husks of various kinds, or possibly with ingredients of distinctly toxic potentialities, like compounds of arsenic as pigments or even frankly poisonous bitters. Misleading advertising and labelling represents a further extension of this. Against such possibilities the terms and authority of the Food and Drugs Act, 1938, offers a reasonably adequate safeguard. In addition, there is the possibility of contamination, either fortuitously or in processing and preparation. Today, the progressive machinations under the last heading constitute a preplexing problem. Thus, unnatural chemicals may find their way into foodstuffs as " sparers ", emulsifiers, bleachers and so on, (e.g., nitrobenzene derivatives for sweetening, mineral oils in place of fats) ; as washing or cleaning agents for utensils, (e.g., quaternary ammonium compounds as detergents) ; from the packing ; as pesticides now so widely adopted in agriculture, (e.g., D.D.T.).

To the " purist " and the " naturalist " the way out is clear ; all so-called " sophistication " of foods should be discontinued or even banned by law. Unfortunately, perhaps, such a course is not a very practical one to adopt. Members of modern, largely urbanised communities have become accustomed to a constantly available supply of foodstuffs, in season and out. On the first occasion that the shopkeeper cannot offer them just that which they have been in the habit of buying, they loudly complain. Admittedly this may be pampering, but a vast industry has been built up for the assembling, distribution and, above all, the stocking of various otherwise perishable commodities. Without this, the life of the average consumer would be much more precarious.

What is more, there is little evidence, though much emotional disclaiming, to support the contention that " natural " foods grown, for example, on compost-manured soils are, in fact, any more health giving than many others.

The " æsthetic " aspect has also to be considered. The white loaf, the green pea and the red plum all have their particular attractions, especially to the housewife subjected to an intensive barrage of colour-print advertising in so many women's journals.

" Sophistication ", then, has come to stay. For the sake of the independent minority we do insist that some source of supply of the " natural " foods should be available. At present, to quote an instance, those who would have a loaf must virtually accept the highly processed product—or go without.

So far as the food industry is concerned, what is most alarming is the realisation that most of the new developments are made at the instance of the manufacturers and sales organisations and not necessarily with the welfare of the consumer as the prior consideration. Thus, one is tempted to enquire whether it really is essential for so much expert and scientific effort to be directed to the use of glyceryl monostearate in bread in relation to crumb structure, crumb structure vis-à-vis chewing properties and crumb stickiness ! Indeed, it is notably in cereal studies that the greatest scientific application seems to have been made with a view, perhaps, to " making water stand on end in the shape of a loaf," to quote one sceptical farmer on this contentious subject.

The trouble is largely due to so much of this work devolving upon chemists in the disguise of " food scientists ". The implications are obviously far wider. For adequate protection of the public the considered views must be obtained of the physiologist, the pharmacologist, the toxicologist and the clinician as well. Furthermore, in the ascertainment of any harmful effects that may accrue, no simple tests can be employed to give a final answer, but only extensive and protracted experimentation. Clearly, as Mellanby and Coppock have insisted, a " national consultative organisation " is urgently required, like the Food and Drug Administration in the U.S.A. Doctors, too, should be not only acquainted with this subject but especially mindful of it, so that in the end, as this is fundamentally a medical problem, the Ministry of Health should be charged with the adoption of a policy and seeing that there is conformation to wise and enlightened standards. We would go further and say that the food laws should be altered in principle ; new devices and preparations should not be adopted simply because they will yield some advantage to the purveyor, with their toxicological features to be scrutinised subsequently and, as it were, in retrospect. Instead, in our view, even more general restrictions would be justified, with specific prior permission being granted for use only after the most careful apprisal, possibly through that national organisation already envisaged.

The next meeting of the Physical Society will be held on Thursday, January 24th, at 8.0 p.m., in the Anatomy Theatre. It will be the occasion of the annual lecture, the only time in the year that the Society is addressed by a qualified man. The speaker this year is Mr. T. B. Layton, consulting surgeon to the E.N.T. Department. His subject will be " The Erect Position in Clinical Medicine."

Although a few copies of " Guy's Hospital, 1725–1948 " are still available to students and nurses at the reduced price, the reserve set aside for this privilege is now very small and will soon be exhausted.

The Editors thank those readers of the *Gazette* who so kindly offered and supplied copies of Wilks and Bettany's " History of Guy's Hospital." We are happy to say that the number received is now adequate to meet present needs.

Some Remarks on Urticaria

By R. T. GRANT, O.B.E., M.D., F.R.C.P., F.R.S.

A Clinical Lecture delivered in Guy's Hospital Medical School on 7th December, 1951

LADIES AND GENTLEMEN,—Although this is a clinical lecture, I am going to deal not with the clinical but with the more general and physiological aspects of urticaria.

Most of you will already have had some acquaintance with urticaria or nettle rash. You will have seen the characteristic reddening and whealing of the skin either on your person or on your patients. In your physiology course you will have learned something of the present-day view about the significance of the urticarial reaction. That view is that the urticarial reaction is the general response of the skin to all forms of injury, that it is produced through the mechanism of the triple response which in turn is set in motion by either the release of a histamine-like substance from the injured skin cells or by the introduction of histamine into the skin from without. But you are probably not acquainted with the evidence on which this conception rests nor by what methods it was discovered. I thought, therefore, that a brief account of the main evidence might be of interest to you, especially as the subject illustrates several important points of view. One is that the phenomena of disease are but exaggerations of physiological phenomena; the phenomena are not in themselves abnormal, the abnormality consisting rather in the circumstances in which they appear. It illustrates also the attempt that is always being made to find some unifying conception beneath the varied manifestations of disease, to find general principles that can be applied in the practice of medicine to the interpretation of diseased states. Moreover, it shows how important conclusions may be drawn from simple experiments using simple apparatus.

The condition called " urticaria " in man was well named, for more reasons than were apparent at the time. The word " urticaria " was first used about 1771 and was used because the so-called skin rash that develops in patients for a variety of reasons was seen to be very like that caused by the stings of the nettle. The Latin name for a nettle is " urtica " and the name is still used for the genus of plants of which our common nettle, *Urtica dioica* is one species. A common feature of this genus of plants is that they have developed a very ingenious defence mechanism consisting of fine hollow hairs which secrete a poison into their lumina. The hair tapers towards the apex and terminates in a small head, just below which the wall of the hair remains unthickened. As the wall of the hair is silicified at the end and calcified for the rest of its length, the whole hair is therefore extremely stiff. In coming into contact with the skin, the head of the hair breaks at the slightest touch and the hair, piercing the skin, pours into it its poisonous contents. The reddening and whealing of the skin and the associated itching and burning sensation that follows a nettle sting are well known. By association of ideas we also speak of being " nettled " when we are stung by the unkind remarks of our fellow men. Indeed, certain persons, when nettled by emotional stimuli, do actually break out into a profuse nettle rash. (I shall speak of this later.)

It is of interest to note, by the way, that nettle stings have been used in the past by soldiers as a remedy for cold feet. The Roman soldiers when they invaded Britain under Julius Cæsar are said to have brought some nettle seed with them and " sowed it there for their use, to rub and chafe their limbs when, through extreme cold, they should be stiff and benumbed, being told before they came from home, that the climate of Britain was so cold that it was not to be endured without some friction to warm their blood."

Now, although the general resemblance between the effects of a nettle sting and the condition of urticaria in man had for long been recognised, it was not until about 30 years ago that the resemblance was submitted to close analysis. In the early 1920's Sir Thomas Lewis became interested in the vascular reactions of the human skin and, among other phenomena, he studied that form of urticaria which, in sensitive subjects, is provoked by mechanical stimulation of the skin, namely, urticaria factitia or dermographism. He showed it to be an exaggeration of a physiological response of the human skin and that the only difference between subjects displaying this form of urticaria and those with normal skins

is that in the former a much slighter stimulus is required to provoke the urticaria than in normal subjects. Like others before him, he was struck by the general resemblance of the skin lesion in urticaria factitia and that provoked by the introduction of a poisonous substance into the skin and thought that the general resemblance might be due to a common mechanism acting in the two cases. But, unlike others, he produced convincing evidence to support this idea. My interest in the subject dates from this time for then, as a young man, I had the good fortune to be associated with Lewis in the search for this evidence. The evidence for the release of a chemical substance in urticaria factitia consisted mainly in demonstrating three things ; (1) the close resemblance of the lesion in urticaria factitia to that caused by the introduction of a chemical substance into the skin, (2) that the mechanism of the two reactions is the same, and (3) that certain phenomena of the chemical reaction which can only be interpreted as due to the presence of a diffusable substance in the skin are exactly reproduced in urticaria factitia.

(1) General Comparison of the Chemical and Stroke Reactions

A main question that arose at this time was what chemical substance to use to provoke the urticaria. It was already known that a variety of substances could provoke the urticarial reaction but from among them histamine was selected on the suggestion of Sir Henry Dale. Barger and Dale had some years previously isolated the substance from ergot. Ebbeke had shown that in weak dilutions it would provoke the urticarial reaction and Dale and his colleagues had shown that it was a normal constituant of at least some animal tissue, for example, lung. There seemed a possibility, therefore, that if a substance was released in human skin by stroking, that substance might be histamine or akin to it. To compare the two reactions, a firm stroke is made on the skin of a susceptible subject and near it the skin is pricked with a needle through a drop of 1 in 30,000 histamine placed on the skin. In about 20 seconds a sharply defined red line appears along the line of the stroke and a red spot around the site of the prick. After a few seconds both areas become surrounded by a bright red flush several centimetres in diameter and with an irregular outline. In a little more than a minute, raised wheals appear over the areas covered by the red line and spot ; these wheals grow to their maximum in about three minutes and usually in an hour's time have disappeared.

If the skin temperature is followed during the course of the two reactions, it is found that in both, temperature begins to rise about one minute after the appearance of the flush, reaches its maximum in one and a half minutes, remains there for 10 minutes longer and then gradually subsides. Further, if the venous pressure in the arm is raised by constricting the veins, the rate at which the wheals develop is retarded ; arresting the circulation prevents the appearance of both wheals. Moreover, both reactions are similarly affected by heating and cooling the skin.

This comparison of the stroke and histamine reactions provided evidence strongly suggesting that a common cause is at work in the two cases.

(2) The Mechanism of the Reactions

(a) **The red line and spot.** By direct microscopical examination these can be seen to be due to a dilatation of the capillaries and venules of the skin and, since the red line and spot appear on the arm when the circulation is arrested, the dilatation is a primary or active one. Further, since it occurs equally well in denervated as in normal skin, the dilatation is independent of the nervous system.

(b) **The surrounding flushes** are due to widespread dilatation of the arterioles. They are known to be arteriolar for the following reasons : they are of a bright arterial colour ; they fail to appear if the circulation is arrested ; they frequently present capillary pulsation, and in their areas abolish the cyanosis produced by congesting the veins of the arm. Unlike the red line and spot, the surrounding flushes are controlled by the nervous system, by a local nervous reflex. That is to say they are present when the nerves to the skin are freshly divided, but are wanting when the cut nerves have degenerated.

(c) **The wheals** are due to an outpouring of fluid into the tissue and, since no wheals occur when the circulation is arrested, the fluid must come from

the vessels. This outpouring of fluid is due to an increased permeability of the vessel wall, for if trypan blue (a dye which does not normally pass through the vessel wall) is injected into the circulation while a wheal is forming, it appears in the wheal but not in the surrounding skin. The rate at which the fluid is poured out is largely controlled by the rate of blood flow through the tissues, but the increased permeability of the vessel wall is not due essentially to simple dilatation of the vessels, but to some independent factor. Thus, if a stroke be laid down on an arm in which the circulation is arrested, and 1 in 30,000 histamine is also pricked in, the red line and spot appear as usual. If the circulatory arrest be maintained for 15 minutes and then released, no wheals will develop, although the red line and spot are present and indicate vascular dilatation. Further, since the wheals will appear on anæsthetic skin, the increased permeability is independent of the nervous system.

The stroke and histamine reactions, which had first been shown to be indistinguishable in general character and behaviour under different circumstances, were in this way shown to be produced by a very complex triple reaction which is identical in the two cases. It could not be doubted that they have a common cause.

(3) Evidence for Release of a chemical Substance in Urticaria

As I have said, this consisted in showing that certain phenomena of the histamine reaction, which can only be explained as due to the presence of a diffusable substance in the skin, are exactly reproduced in urticaria factitia. The chief phenomena are three : (a) the spread of the red reaction during circulatory arrest ; (b) delay of the surrounding flare by circulatory arrest ; and (c) the development of refractoriness.

(a) **Spread of local reaction.** It has been said that if histamine is pricked into the skin while the circulation is arrested, the red spot appears. The spot remains there as long as the blood flow is at a standstill and, what is important, all the time increases in diameter. The meaning of this seems clear. Histamine, a diffusible substance, has been introduced ; it lies in the skin and diffuses outwards from the site of puncture, producing its local action on the surrounding minute blood vessels. If the experiment is repeated, substituting a stroke for the histamine, a similar increase in the diameter of the red line is observed. This parallellism strongly supports the view that a diffusible body having a histamine-like action is released in the skin along the line of the stroke.

(b) **The surrounding flush.** The arteriolar flush appears around a histamine puncture in about 20 seconds, spreads and reaches its height in about three or four minutes and then fades, disappearing by the end of half to one hour. The flush might be due to the painful stimulus of the prick itself or to the histamine introduced. That it is due to the histamine itself is shown by the following experiment. The circulation to an arm is arrested and histamine pricked in. Ten minutes later another histamine puncture is made and the circulation released. A bright flush covers the arm (the flush of so-called reactive hyperæmia). This quickly fades, and the arteriolar flushes surrounding each histamine puncture are clearly seen. If now the time relations of the fading of the two flushes be noted, it will be found that the fading occurs simultaneously, although the first picture was made 10 minutes before the second. Again the meaning is clear ; the flush round the early puncture cannot be due to the original mechanical or painful stimulus of the prick, a reflex vasodilatation so caused would subside with equal quickness whether the circulation to the arm was arrested or not ; its action would not be prolonged by the period of the occlusion. The flush, then, must be due to the action of histamine itself. Repeat this experiment with two strokes instead of histamine punctures and the same equal fading of the flushes is observed. The conclusion drawn is that the stroke causes the flush indirectly by releasing a diffusible substance in the skin.

(c) **Development of refractoriness.** When histamine is punctured into an arm in which the circulation is arrested, the red spot develops. If the circulation is released after five minutes a wheal will develop over the red spot but, if the arrest is maintained for a longer period, 15 minutes or more, then on release no wheal will appear. The time of occlusion required to prevent the formation of a wheal is shortened by heating and lengthened by

cooling the arm. To this failure of the wheal to appear the term " refractoriness " has been given. From the fact that whealing will occur after shorter periods of circulatory arrest, it is apparent that the later failure is due to loss of the increased permeability which first develops. It is not due to lack of histamine at the site of puncture ; the red spot is evidence of its presence and, further, fresh histamine may be introduced and still produce no wheal. The spot is refractory to further stimulation.

Again the same thing can be shown to hold good for the stroke reaction. Arrest of the circulation for 15 minutes prevents the appearance of a wheal although the red line develops, and the red line after release of the blood flow will not wheal to further stroking. It will not wheal to histamine either. In fact the two stimuli, histamine and stroke, are interchangeable, a histamine area rendered refractory will not wheal to further histamine or to a stroke and similarly a stroke area rendered refractory will not wheal to a second stroke or to histamine. This, then, is further strong evidence that the stroke releases a substance of a histamine-like nature in the skin.

These observations on urticaria factitia were repeated in various other forms of urticaria and all led to the same conclusions, namely, (1) that the skin lesion of urticaria, however caused, closely resembles that produced by introducing histamine into the skin, and (2) that in each case investigated there is strong evidence for the release of histamine-substance from the skin cells.

Three other pieces of evidence are now available. It has been shown that the skin of man and other animals contains a histamine-like substance. Though it has not been isolated and chemically identified, the substance, from its pharmacological reactions, is almost certainly histamine itself.

Morphine pricked into the human skin provokes the urticarial reaction and Lewis concluded that it does so by releasing histamine from the skin cells. Feldberg and Paton have recently found that if cat's skin is perfused by the blood vessels, the addition of morphine to the perfusing fluid causes the skin to become œdematous and large quantities of histamine appear in the venous effluent.

The recently developed anti-histamine drugs given in suitable doses prevent, or at least diminish the severity of urticaria in man.

It is to be noted that the release of histamine from the skin cells and the consequent development of the triple response leading to the urticarial reaction is the normal physiological reaction of the skin to injuries of all kinds. But its special interest for medicine is that some persons, somehow or other, become sensitised, so that in them relatively mild injuries or even stimuli not usually regarded as injurious, provoke the full urticarial reaction. This sensitivity is not due to an increased response of these subjects to histamine, for they react normally to it, but is due to the skin cells becoming unusually liable to liberate their histamine in response to the appropriate stimuli. How these stimuli bring about the release of histamine or H-substance from the skin cells is not known in detail, but it is clear that between the application of the stimulus to the body and the release of histamine there is interposed a shorter or longer chain or reactions. Thus, in the urticaria factitia that we have been considering it is probable that the chain is short, mechanical injury probably directly injures the cells of the epidermis to make them release their H-substance. In a bee sting, however, as Feldberg and Kellaway showed, the poison injected is a lecithinase which acts on lecithin forming a lytic substance (lyolecithin) which then in its turn releases histamine. But there is another form of urticaria which I mentioned earlier, namely the nervous or psychogenic urticaria, in which an even longer chain is involved and which was studied by Pearson, Comeau and myself shortly before the last war. In this form of urticaria, emotional stimuli set in motion a complex nervous mechanism involving sense organ, afferent nerves, nerve centres and efferent nerves, which ultimately causes the release of H-substance from the skin and so provokes the urticaria. The evidence we gathered points strongly to the conclusion that the essential fault in these cases is that the skin has, in some way or other, become sensitised to acetylcholine. So that any stimulus applied to the body which excites the efferent cholinergic nerves and thus releases acetyl choline in the skin leads in turn to the release of H-substance from the skin cells and thus provokes the triple response of urticaria. I consider briefly this evidence.

Urticaria of Nervous Origin

There is a not uncommon type of urticaria which is nervous in origin and in which a widespread rash may be provoked by emotion, by exercise and by warming the body. The rash may be quickly brought out if the patient is excited, embarrassed or frightened, if he runs, or dances, or plays games, when sitting in front of the fire or on taking a hot bath. The patients are mostly young females.

A convenient way of regularly provoking attacks of urticaria in such patients is to soak the legs in water as hot as can be borne (about 45 C.), covering the body with a blanket to prevent the loss of heat by the evaporation of sweat. For example, in one case in which this was done, after 10 minutes heating the skin was flushed and sweating. At 15 minutes wheals began to form on the face, neck and trunk. At the end of an hour the face was blotchy and slightly swollen about the eyelids and lips. The skin of the body, arms and legs (down to the water line) was covered with very many wheals. The palms were unaffected and the axillæ only slightly affected (a regular feature of these cases). Heating was stopped and a half an hour later the eruption was subsiding.

Now, the fact that urticaria does not develop if the circulation to the legs is arrested when they are warmed, shows that the urticaria is not due to stimulation of the afferent sensory nerves of the legs and is due to the warmed blood returning from the periphery to the centre. But other experiments show clearly that the efferent nerves are involved. Thus, if the circulation to one arm is arrested and the legs are heated for about half an hour, then a general urticaria develops except on the ischæmic arm. If, now the warming is stopped, the patient cooled, and when the rash is subsiding the circulation to the arm released, then a very intense urticaria develops in the previously ischæmic arm. That the local eruption appears so quickly on restoring the circulation at a time when the general eruption is subsiding seems to show clearly that H-substance is released in the skin of the arm while its circulation is arrested and that it occurs in response to warming the legs. Further evidence of the release of H-substance during warming can be found in the appearance of red spots in the ischæmic arm during warming ; these red spots become wheals when the circulation is restored to the arm. It follows that the H-substance must be released in the skin through the peripheral nerves, for the nerves constitute the only functional connection between the ischæmic arm where the H-substance is released and the body where the stimulus is applied. Proof of this is supplied by another experiment. That is that the urticaria is prevented from appearing in response to warming in the area of distribution of a nerve that is blocked by a local anæsthetic. Thus, in one case, the circulation to one arm was arrested and the internal cutaneous nerve blocked at the elbow with procaine. When full anæsthesia was established in the area of distribution of the nerve down the ulnar side of the forearm, the patient was heated by immersing the legs in hot water. The usual urticarial reaction followed and by 25 minutes there was a profuse urticaria on the face, body, the normal arm and on the thighs. The heating was stopped and the patient cooled. Then the circulation to the arm was restored. There followed the usual bright reactive hyperæmia over the whole arm, on anæsthetic as well as on æsthetic skin. Then this faded on the anæsthetic area. On the normal sensitive skin very many wheals developed. At 41 minutes, the anæsthetic area was pale, unspotted and unwhealed and contrasted strongly with the deeply flushed and much whealed surrounding skin. By one hour sensation had returned to the forearm but no urticaria developed on the area previously anæsthetic ; the eruption elsewhere had largely subsided.

We may accept, then, that the urticaria appearing in response to warming the legs is due to the release of H-substance in the skin through the peripheral nerves. Since arresting the circulation to the warmed limbs prevents the appearance of the urticaria, we may conclude that the warmed blood returning from the limbs stimulates some central mechanism. It seems reasonable to believe that the urticaria following exercise and emotion in these cases is due to a similar action through the peripheral nerves induced centrally or reflexly.

The nerves involved. We do not know the anatomical distribution of the nerves concerned in the reaction, but there is strong evidence that they belong to the parasympathetic system or in Dale's terminology are cholinergic nerves. Thus we found that pilocarpine given subcutaneously provokes a general urticaria of the same type. Pilocarpine introduced into the skin by electrophoresis provokes an urticaria limited to the area over which the electrode

is applied. We found, further, that atropine injected subcutaneously before warming the legs prevents the development of the rash. Now the production of local or general urticaria by pilocarpine and the prevention of the urticaria by atropine strongly suggest that the cholinergic nerves are involved. Further evidence is obtained by introducing a choline compound into the body. Subcutaneous injection of "doryl" quickly provokes an intense generalised urticaria. Introduced locally into the skin by electrophoresis it provokes a local urticaria. I should mention that pilocarpine and choline compounds given similarly to normal controls do not provoke the urticaria.

Unresponsiveness. There is still further evidence that the urticarial attacks are due to the stimulation of the cholinergic nerves. This is derived from observations on what is called the development of unresponsiveness. We found that any part of the skin whealed as the result of heating the legs will no longer respond by whealing to this stimulus until an interval of about two days. The failure of an area to wheal again is not due to the vessels being refractory to histamine. For after the original whealing has subsided, the area wheals as well as does normal skin of a control subject to histamine pricked into the skin. It is not due to lack of H-substance in the skin cells, for the skin wheals normally when injured as by pricking in morphine. It seems, therefore, that skin recently whealed by warming the legs fails to wheal again because H-substance is no longer liberated. This failure of H-substance to be liberated as usual cannot be attributed to failure of acetylcholine to be released from the nerves, for whealing does not occur when a choline compound is introduced into the skin. We may say, therefore, that whealing does not occur because the skin cells have become temporarily unresponsive to acetylcholine. Moreover, skin whealed by introducing doryl into the skin locally, will not rewheal when the nerves are stimulated by warming the legs. We may say, then, that the interchangeability of nervous activity and a choline derivative, doryl, to provoke and display unresponsiveness, is further evidence that the urticarial attacks in these cases are due to the stimulation of cholinergic nerves.

We now come back to where we started, to the common nettle. The work on urticaria and the triple response in man led to the assumption that the reaction of the human skin to the sting of the common nettle (*urtica dioica*) is brought about by an unknown poison, present in the fluid of the nettle hair which has the property of releasing histamine (or H-substance) from the epithelial cells. About four years ago Feldberg and Emmeline, starting with this assumption, investigated the nature of the unknown nettle poison. To their surprise, however, a different, and in some ways simpler, explanation was found. The nettle hair fluid contains histamine itself in a high concentration. They found that a single hair contains an amount of histamine ranging from 0·005 to 0·02 μg. and in about a concentration of about 1 in 1,000 to 1 in 500 or even stronger—an amount and concentration clearly sufficient to account for vascular reactions in the human skin. In addition, they found another substance, acetylcholine, which we have seen is also concerned with a particular type of urticaria in man. They found acetylcholine to be present in the hairs in amounts ranging from 0·03 to 0·16 μg. in average concentration of about 1 in 100 or stronger. They found it at first difficult to attribute any function to the strong solution of acetylcholine for the skin reactions produced by the sting of the nettle hair. When such a solution of acetylcholine is pricked into a normal skin the vascular reaction as well as the sensations produced are negligible. The function of acetylcholine, however, becomes clear when it is pricked into the skin together with histamine. In this case a burning sensation is produced, which histamine alone cannot imitate. Histamine alone causes itching, which may be violent, but in the presence of a strong concentration of acetylcholine a burning sensation is caused which precedes the itching. Therefore the characteristic sensation produced by the sting of a nettle hair is a result of a combined action of both histamine and acetylcholine in the hair fluid.

Now, usually in urticaria in man, the complaint is of itching and only rarely of burning. But in those cases of nervous urticaria in which the skin has become sensitised to acetylcholine, we observed that often the patients complained of a strong burning feeling as the urticaria was developing.

In conclusion I draw attention to a parallelism and a difference between the defence mechanism of the plant and man. Both use the same substance, histamine, in their skins. But the plant uses it to prevent injury while man uses it to dilute and remove the products of unjury.

Cortisone in Ophthalmology

By O. GAYER MORGAN, M.Ch., F.R.C.S.

A CERTAIN number of selected cases have been treated with Cortisone in the Ophthalmic Department and, although the numbers are small, some estimation of its value can be formed. The Ophthalmologists are lucky in that most of their cases can be treated locally with the minimum quantity of the hormone. This means that we do not have to worry so much about the contra-indications to systemic treatment such as diabetes, hypertension, etc., and also that there is not the same need to watch for the possible toxic complications. The eye is particularly well fitted for observation of results of treatment because it can be observed with great accuracy with the binocular corneal microscope and slit lamp illumination.

It is of particular importance in ophthalmology to find something which has a blocking effect on the inflammatory or allergic reaction, because in the eye these have the most disastrous results from the point of view of affection of vision. It is often vital in many diseases of the transparent tissues to prevent the normal reparative changes such as œdema and formation of new vessels whilst the appropriate measures of active attack on the primary disease are employed to the full. So many cases have settled after a stormy passage only to show a cornea full of new vessel formation or fibrous tissue, or a pupil filled up with organised exudate and an iris bound down to the lens—the result from a visual point of view being nearly worthless.

In Cortisone we have the ideal ally even though its exact mode of action is not fully understood. It is known that it reacts in the tissues to reduce capillary permeability and cellular exudation and to prevent the formation of fibrous tissue, new blood vessels and granulation tissue, but exactly how it does it is a problem which has not yet been solved.

The methods of administration are by local application or systemic injection. It would appear that on the whole, in the eye, local treatment is adequate for everything except, perhaps, some of the affections of the posterior segment.

Cortisone can be employed as drops of a 1–4 dilution in saline of the ordinary preparation, or as an ointment, or by sub-conjunctival injections of about 4 or 5 ml. of the suspension (25 mg. per ml. Cortisone acetate). The latter is the method we have employed in all our cases. After local anæsthesia with some drops of cocaine 2%, the Cortisone is injected in one or two places under the conjunctiva about 4 mm. from the limbus. The suspension can be seen as a whitish lump under the conjunctiva and this remains for a variable period of about 5–10 days. Doses should be repeated every three days even though some residue is still apparent at the site of the injection. This is especially necessary in acute cases as it is probable that the active influence of the injection is only 3–4 days. Injections can be made into Tenon's capsule or further back in affections of the optic nerve or in posterior choroiditis. We have not had any undue reaction as a result of this method.

Cases Treated

Iridocyclitis in young adults. A condition which always gives rise to the utmost anxiety and is the cause of a great many cases of blindness. Several cases of this condition have been treated and, where the initial phase has been acute, the results have been remarkable. In so many of these people the general examination has been completely negative and so treatment has been symptomatic. With Cortisone the K.P. has disappeared rapidly, the iris has become less œdematous, the aqueous has cleared and this improvement has continued during the treatment. In one case which had not been treated with Cortisone secondary glaucoma supervened on the acute iridocyclitis and the response to Cortisone was dramatic. This particular case continued treatment over several months and the eye has remained quiescent and with good vision. However, only a week or two ago she came up with iridocyclitis in the other eye. This emphasises the point that Cortisone has no curative effect on the disaese and we are considering a combination of Cortisone treatment with tuberculin desensitisation in this case. Chronic iridocyclitis seems to be very unresponsive though it is always worth giving Cortisone a trial.

A case of *recurrent iritis* with hypopyon which was causing considerable anxiety has been completely arrested by injections of Cortisone. Mild relapses occur but each time the early reaction disappears with great rapidity and nothing further happens. In this case again every conceivable effort has been made to locate the cause of the condition, but nothing material has been discovered. One feels that Cortisone enables the natural defences to be mobilised and to reach the seat of the trouble more easily, as well as reducing the local reactions to hypersensitivity.

A bad case of *rosacea with keratitis*, which has been admitted to the ward on several occasions for progressive corneal ulcers with vascularisation, has responded extremely well. This disease with its well-known superimposed psychological factors is one in which the cornea may become invaded by new vessels which encroach on the central portion and result in severe corneal scarring. Our patient's attacks could be aborted almost immediately and, as a result of the knowledge of the availability of Cortisone, his whole mental outlook changed, and there has been a general reduction in severity of the primary disease. These cases are notorious for their relapses which often depend on some domestic or financial stress, so it is too early to say that we have effected a cure.

Two cases of *disciform keratitis*, a condition which is probably due to a virus of the catarrhal herpetic type, have done quite well. They were associated with early corneal œdema and œdema of the endothelium of the anterior chamber and the acute phase was prevented from spreading. Unfortunately the deep haze of the corneal tissue is absorbed from without inwards, i.e., from the limbus to the centre, and so the visual defect remains for a considerable time, and a permanent residual scar is nearly always left. This was the case in our patients, and it is difficult to say to what extent Cortisone was of value. A case of *keratitis* with much œdema of the cornea and associated with *scleritis*, and a *scleral nodule* following herpes zoster did extremely well in the initial stages. Later the corneal epithelium, which was insensitive, became detached from Bowman's membrane and could be moved over it like the skin over a large blister. This may have been the result of too long a course of Cortisone as it is an unusual complication. A tarsorrhaphy was performed and the lids are still joined together at the moment.

Some cases of *Sclerokeratitis* have done very well without relapses, even though no cause has been found and no other treatment has been undertaken.

We have had no cases of *acute interstitial keratitis* of specific origin because presumably the condition is much more rare than it was. It is reported that Cortisone continued over the whole period of the disease, which may be several months, is an essential. The disease tends to run a certain course and then die out, and the local application of Cortisone prevents the extreme scarring so often seen in late cases. Whether anti-specific treatment should be given at the same time is a debated point.

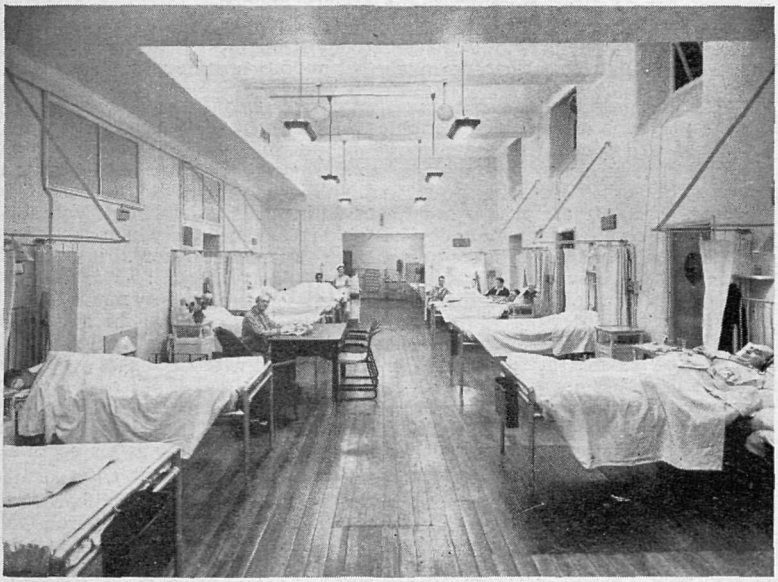
The reactions in cases of perforating injury can be reduced considerably with Cortisone and it may be that many eyes which previously would have been considered irritable, and so liable to lead to sympathetic ophthalmia, and which would have been removed as a precautionary measure will now be saved. It is too early to say whether this may, in some cases, be an added danger and lead to more cases of sympathetic inflammation; in other words that it may lead us to hang on to cases too long. There is the point on the other side that reports tend to show that sympathetic ophthalmia when it has once developed, particularly if it is of the iridocyclitis type and not the posterior neuritis type, can be effectively treated, controlled and, in fact, cured. If this is substantiated it removes enemy No. 1 for ophthalmologists, and will relieve us of a tremendous element of anxiety in dealing with perforating wounds of all types.

In conclusion it would seem as if Cortisone is wonderfully effective in early acute conditions and prevents the reactions which result in opacities detrimental to vision. It is useless to expect any absorption of old deposits of fibrous tissue or vessel formation. It certainly is in the line of those distinguished precursors the sulphonamides and penicillin in the help it gives towards solving some of the complications of inflammation.

A Vision Achieved

FOR a good many people Christmas and the old Eye Ward will have had pleasant, if not romantic, associations. Always somewhat gloomy, even on the brightest of sunlit days, it took on an aspect almost macabre with some of its festive decorations. For all that, it maintained a spirit of gaiety and ebullience and, indeed, an ebullience of good spirit on such occasions. The focal point of the rejoicings was, inevitably, the old dining room at the far end where, in the candle light and seclusion from matters more clinical, " soft eyes " so frequently " looked love to eyes which spake again and all went merry as a marriage bell."

Today, all that is changed. After months of the most strenuous efforts the new Eye Ward was occupied at the beginning of December. With a completely new and virtually unrecognisable layout, accommodation is now provided for over fifty beds, including the female neurological patients in Ruth as well as the males in Barnabas adjoining. In addition, there are beds for the eye and skin cases, and also for the medical cases under the care of Dr. Grant.



Besides the two main wards three further side rooms are available for special nursing or for seriously ill patients. Then, on each side, the sanitary block comprises sluice, sterilising room, two bathrooms and lavatories, while, at one end, an appropriately equipped eye theatre has been established, a dark-room is in the process of being fitted out and a third room may afford space for such purposes as a skin theatre.

Of particular note is the air-conditioning installation (by Brooks), the control panel of which displays the most fascinating red and green lights symbolising, it is said, the state of the ventilation alone and not, under any circumstances, the state of affairs inside the sister's room beyond. The drug cupboards, too, are built within their own small rooms, so that after being measured out, medicines are not left unprotected in the ward at large. Above all, the lighting system represents the latest of its kind—largely at the instigation of Mr. Frank Law. Not only do the overhead units cast a suffused and almost shadowless glow but, after dark, sufficient illumination is given by the permanently affixed " night lights " attached to the walls at salient points.

The predominant tone of the decoration is pink and the whole mood is one of modernity and brightness. The patient who enters the Eye Ward today is consequently greeted, not by melancholy and despair but, instead, by a welcome atmosphere of good cheer and optimism.

The Goad of Venus

By H. St. H. VERTUE

I.

Πολλὴ μὲν ἐν βροτοῖσι κοὐκ ἀνώνυμος
θεὰ κέκλημαι Κύπρις οὐράνου τ' ἔσω,
ὅσοι τε πόντου τερμόνων τ' Ἀτλαντικῶν
ναίουσιν εἴσω φῶς ὁρῶντες ἡλίου,
τοὺς μὲν σέβοντας τἀμὰ πρεσβεύω κράτη,
σφάλλω δ' ὅσοι φρονοῦσιν εἰς ἡμᾶς μέγα.

Euripides.

Great upon earth am I, many my names,
The Cyprian goddess, glorious too in Heaven.
Of all from Pontus to the Atlantic bounds
That live and look upon the glad daylight,
I honour them that venerate my strength,
But bring them down who set my power at nought.

THESE words from the *Hippolytus* were once unconsciously confirmed by a poet who did not love Euripides. Tennyson's *Princess* is an eloquent and well-adorned presentation of the mischief that can be wrought in a mind, even in a very fine mind, when the normal response to the normal impulse of sex is for long prohibited. This subject is an obscure one. Writings about it are scanty and inconclusive and information is seldom obtained directly. Medicine today has its Mysteries, upon which the future life so much depends. Neither to drink the sacred barley nor to banquet off the flesh of bulls, but yet to be initiate, to cry " Konx Ompax ! It is enough ! Letters of power, thus do I subscribe ye," this is the end of every man's desire ; and in the Mysteries our subject has no place. Then again, for a space of about a thousand years lying between ourselves and classical antiquity, the stimulus of sex and the response to it were invested with sinfulness ; and this long tradition has not yet lost its effect. It is Apollo, god of poetry and god of day, whose fiery wheels light up for mortals the untrodden crests of Parnassus, it is he who sends his beams into the dark places. It will be well, then, to take advantage of the opportunity that Tennyson offers, especially as his poem has never before received an analysis.

Plato believed at one time that if a man failed to attain a good life, his soul was re-incarnated in a woman ; and that if he did not then desist from evil, he was next translated into a beast. The Dialogues were well known to Alfred Tennyson, for he was made acquainted with any of them that he had not troubled to read in the original Greek through the English version of his friend Jowett.

Dear Master in our classic town,
You, loved by all the younger gown
There at Balliol,
Lay your Plato for one minute down.

But to read Plato is not always to agree with what he says ; and of all his notions the one just mentioned must have seemed among the oddest to Tennyson, who was careful to explain that woman is different from man but not inferior, who expressed the view that she is more moral than he is and who was eloquent on the redeeming power of love, all in accordance with the true romantic spirit.

For indeed I know
Of no more subtle master under heaven
Than is the maiden passion for a maid,
Not only to keep down the base in man,
But teach high thoughts and amiable words,
And love of truth and all that makes a man.

No doubt it was his mother's influence that led him to this idealism, for she

was a gentle creature, sensitive and thoughtful, to whom the poet showed unfailing courtesy and devotion.

> Happy he
> With such a mother ! faith in womankind
> Beats with his blood, and trust in all things high
> Comes easy to him.

Mingle with this idealism in one breast a poet's vivid sense of beauty and an ardent belief, like that of Shakespeare's Biron, that no author in the world teaches such beauty as a woman's eye, and a passionate and enduring love is the destiny in store.

He met his fate in 1836 at the wedding of his brother, Charles, to a Miss Sellwood. Such is the encouragement given by these ceremonies to young men that they not infrequently fall in love with the bride's sister, especially if she be cast for the part of bridesmaid. So it was a fortunate day for Tennyson when he beheld Miss Emily Sellwood thus arrayed. He had come upon her once before with Arthur Hallam in the " Fairy Wood ", as they had named it, when she was but seventeen ; and he had called to her, " Are you a Dryad or an Oread, wandering here ? " She is Katie of *The Brook*, " with that petitionary grace of sweet seventeen." More important still, she is Maud, who is " not seventeen, but she is tall and stately," Maud, who was gathering " woodland lillies " when she first gave her hand to her lover and is strangely young to modern taste. At that encounter with Emily a seed was sown in the poet's heart that was to sprout and bring forth many a fair bloom : but first the young plant received a severe check.

They became engaged ; but four years later, in 1840, Mr. Sellwood put a stop to all communication between them. Hallam Tennyson's biography of his father is so extremely filial that the reason for this cruel deed is only partially explained. He speaks of lack of money ; and it is true that Catullus's purse seldom has much in it but cobwebs; however, he does let fall some guileless remarks that tell of another motive. This Mr. Sellwood, it seems, was one of the Berkshire Sellwoods, a stately gentleman, in whom it was a very honourable thing that he should adopt the profession of solicitor, in order that his family might be saved from ruin. It is likely, therefore, that he thought parson Charles Tennyson good enough for a daughter of his to marry, but not poet Alfred, an unindustrious, eccentric and rather formidable young man ; and it is certain that the poet resented his action bitterly. What he said or did is unknown, but how he felt is told in his next verses.

These were the *Poems in Two Volumes*, appearing in 1842 and containing among other things the *English Idylls*, recently composed. The name of one of these, *Love and Duty*, bespeaks the subject ; and it is turbid with emotion. Another, *Edwin Morris*, is an attempt to make light of the situation and adopts a sarcastic tone. But in the very well known *Locksley Hall* the expression of anger is forcible and unmistakable. The poet imagines a cousin Amy, " puppet to a father's threat and servile to a shrewish tongue," who, having first acknowledged her love for him, deserts him for a lord of the soil. A few verses will show the mood.

> Cursed be the social wants that sin against the strength of youth !
> Cursed be the social lies that warp us from the living truth !
>
> Cursed be the sickly forms that err from honest Nature's rule !
> Cursed be the gold that gilds the straiten'd forehead of the fool !

There is another poem founded directly on the poet's painful experience, long in the making and carefully finished, and that is *Aylmer's Field*. As the parson's younger brother, Leolin, he declares that

> This filthy marriage-hindering Mammon made
> The harlot of the cities.

Tennyson, one may be sure, never stooped to such a shift : he was perfectly continent. But then what became of his sex ? We rightly call sex an instinct because that word is derived from the Latin verb *stinguere*, to prick or goad, being careful to distinguish it from its homonym meaning to quench ; and if sex is not gratified, it will not cease from pricking. All sensation is accompanied by feeling, and feeling may be either pleasurable or painful. Pleasure is that

which living things pursue, and among the pleasures is Venus, hominum divumque voluptas, who yet must be obeyed to be enjoyed.

> Then do the salvage beasts begin to play
> Their pleasant friskes, and loath their wonted food :
> The Lyons rore ; the Tygres loudly bray ;
> The raging Buls rebellow through the wood,
> And breaking forth dare tempt the deepest flood
> To come where thou doest draw them with desire.
> So all things else, that nourish vital blood,
> Soon as with fury thou doest them inspire,
> In generation seeke to quench their inward fire.
>
> *Spenser.*

One sort of pleasure, kinetic pleasure, as we learn from Epicurus, is experienced on the road to fulfilment ; but the static pleasure, the most complete form, is not achieved until fulfilment is complete. If on the other hand, there is no fulfilment, then there results what he calls the pain of want. In that case the imagination may come to the rescue with a fictitious gratification, which is likely to run into strange fancies. At some other times in history it would have been possible for Tennyson to body forth the imagined gratification in plain terms, as any poet of Greece or Rome could have done or as Marlowe did in his *Hero and Leander* ; but at that particular time morality was so strict that he had to disguise his real wishes, not only from others but from himself as well. In response to his need there issued a lengthy piece of poetry, *The Princess,* which well illustrates the difficulty that there may be in comprehending human behaviour, when all the facts are not known. No one in those days would have recognised that *The Princess* depicted the pain of want : no one, unless he had studied medicine, would understand all its implications now. The poet objected, and rightly, to inquisitiveness about his private life—

> He gave the people of his best :
> His worst he kept, his best he gave.
> My Shakespeare's curse on clown and knave
> Who will not let his ashes rest !

However, the peculiarities of behaviour are an important branch of medical study, one which it is legitimate to pursue. It is the trail of slime drawn over a great man and marking the track of the amateur psychologist that is so objectionable.

The Princess, published in 1847, is a protest against the subjection of women, a matter on which the poet had good reason to feel keenly. There is no need to tell the story, as every one must have read the peom. Therein are to be found three striking features, each illustrative of the need to pursue pleasure and to escape from pain, but only to be understood by those who apply their understanding.

First to be considered is a simple device, which depends upon the fact that in imagination the same pleasure can be multiplied, whereas in reality it can only be varied once fulfilment has been attained. In this story the single woman, Emily Sellwood, to whom approach has been denied, becomes a citadel of women, the university founded by the princess, which no man might enter on pain of death. The idea of the coveted femininity is thus intensified, simply by multiplying the number of women who will convey it and confining them all in a limited space. Hence the " hundred airy does " that come tripping after the princess, hence the " six hundred clad in purest white " that attend chapel. This is the notion that lies behind the harem. Here is the source of the hundred daughters-in-law and fifty bridal chambers of Priam, king of Troy, the oriental potentate whose barbaric splendour the young Greeks brought down, letting in the dawn of European civilisation where the towers of Ilium had stood.

> Vidi Hecubam centumque nurus Priamumque per aras
> Sanguine fœdantem, quos ipse sacraverat, ignes.
> Quinquaginta illi thalami, spes tanta nepotum,
> Barbarico postes auro spoliisque superbi
> Procubuere. Tenent Danai, qua deficit ignis.
>
> *Virgil.*

Similarly, the beauty of the girls is exaggerated beyond anything that would naturally occur. See a band of them moving together—

> On they came,
> Their feet in flowers, her loveliest, by them went
> The enamoured air sighing, and on their curls
> From the high tree the blossom wavering fell,
> And over them the tremulous isles of light
> Slided, they moving under shade.

The poem is as heavily perfumed as some warm river-valley, where all the may-trees are in bloom. There is no doubt about its many beauties ; yet the poet himself, when his life was flowing in a happier course, was aware that there was something unsatisfactory about it, and after his death his friends passed it silently by.

In love the static pleasure of fulfilment is preceded by the kinetic pleasure of wooing, which the poet contrives to prolong by endowing his heroine with a particular character. He has made her one of a very intractable type, scornful of love and hard to woo, who speaks slightingly of women's ways,

> to flaunt, to dress, to dance, to thrum,
> To tramp, to scream, to burnish and to scour,
> For ever slaves at home and fools abroad.

Now it is true that among women who dislike the feminine way of life there are some that, deep in their hearts, do desire to be oversome and forced to accept what they outwardly despise. Strong though they are, they will yield, but only to something stronger than themselves. In the old classical story the maiden Atlanta challenged her suitors to a race. He who won was to be rewarded with her hand, but he who failed was put to death. All lost their lives until a certain Milanion accomplished his end by cunning. The suffix-ion is diminutive ; so we may suppose that he was a small as well as a crafty man, and may imagine for ourselves what sort of treatment he would receive from Atlanta, once he had got her. Her heart had already inclined towards the hero Meleager, with whom she had joined in the hunt for the Calydonian boar, and their story is the theme of the best Greek tragedy in the English language, *Swinburne's Atlanta in Calydon*, wherein the poet shows rightly that the hero had no more than a just admiration and a proper courtesy for Atlanta, not love. In real life those who yearn for a virgin huntress or a Princess Ida are neither Meleager nor the formidable Tennyson himself, whose true love, Emily, was framed upon the model of the ideal Victorian wife : they are, rather, men who have themselves a half-feminine wish to be dominated. So one may see some slender youth gaze adoringly into a cool grey eye ; yet he had better think twice, for if he cannot overcome her inhibitions, he will be held in small esteem ; and she may revenge herself upon him later for not being Meleager.

The third device used by the poet shows a still greater departure from reality. It depends upon the peculiarities of the chief actor, the prince, who is introduced thus :—

> A prince was I, blue-eyed, and fair of face,
> Of temper amorous, as the first of May,
> With lengths of yellow ringlet like a girl,
> For on my cradle shone the Northern star.

Anon the pretty youth, in order to gain entrance to Ida's university, is laced up in girl's clothes and goes rustling, a maiden among the maidens, carrying off the deception too, until one of his friends provokes him by an indiscretion. Now Tennyson was a large, swarthy man, with a resonant voice, an awe-inspiring presence and a power of mind and force of character that enabled him to hold his own with the highest, wherever he moved : how then came he to stumble upon this inept fancy ? Again we must look to the pain of want for an explanation. Because the real woman could not be won, the qualities of her sex were regarded as a substitute and were adopted in imagination. It was a way round more easily taken by a poet, who idealized women, than it would be by any one whose desire was simply carnal. From the same adopted femininity sprang the wish to be possessed by some one of a dominating type ; and even the more passive attitude of the female in love was assumed, for it was

not the prince who bestowed the first kiss but the princess, bending down over the youth as he lay recovering from his wounds, like Artemis stooping over Endymion upon Latmos. She had rejected him previously with contumely. but the gentle art of nursing melted her heart—on duty too !

The wish to be like a woman can be paralleled from the fifth book of *The Faerie Queene*. Therein the noble knight Artegall is overcome by the Amazon Radigund and is forced to wear women's weeds and to work at women's tasks ; but there is a cruelty in Spenser's narrative that indicates a worse deterioration in his case than in the other's. He had " languisht long in life-consuming smart " for Mirabella, who does penance for her hardness of heart and stubborn disposition in the next book ; but eventually he finds his happiness with " a jolly Shepheards lasse ", that is Elizabeth Boyle, who became his wife and so placated the Cyprian. The matchless Epithalamium, which celebrates their marriage, is throbbing with the passionate joy that succeeds long sufferings past.

> Now al is done ; bring home the bride againe,
> Bring home the triumph of our victory,
> Bring home with you the glory of her gaine,
> With joyance bring her and with jollity.
> Never had man more joyfull day than this,
> Whom heaven would heape with blis.

When we consider these revelations of their inmost selves that the poets have vouchsafed to us, we must conclude that we know little enough about most of our patients. There is a well known passage in the *Charmides* in which Socrates explains to his hearers that a good physician will not attempt to cure the eyes without taking into account the head, nor the head without considering the body as a whole. He goes on to say that while he was on active service at Potidæa a Thracian physician assured him that it was useless to attempt to heal the body without also healing the soul : the part cannot be healthy unless the whole is healthy. Yet a man may spend a morning seeing medical out-patients, who assure him each one that there is not a single worry or anxiety in his life, whereas the doctor very well knows that not a man of them would be in the room where he is unless there was something amiss with his mind. Nor do they fail to speak simply from reluctance, but just as much on account of want of perception of the ways in which their minds work.

> Each pursues what seems most fair,
> Mining like moles through mind, and there
> Scoop palace-caverns vast, where Care
> In thronéd state is ever dwelling.
> *Shelley.*

(*To be continued*)

The Wills Library

BOUND VOLUMES OF PERIODICALS MISSING

When the annual stocktaking of the Wills Library was carried out during the summer vacation various bound volumes of periodicals were missing from the files. These are listed below. Borrowers who have such volumes in their possession are urged to return them to the Librarian without delay.

Acta Medical Scandinavica, 1948, Vol. 133.

Guy's Hospital Gazette, 1945, Vol. 59.

Guy's Hospital Reports, 1938, Vol. 88.

Journal of Anatomy and Physiology, 1930, Vol. 64.

Journal of Physiology, 1894, Vol. 16.

Medical Annual, 1949.

Medical Research Council. Special Report Series. 1938, Numbers 228–230.

Practitioner, 1942, Vol. 148.

Quarterly Journal of Medicine, 1944, Vol. 13 n.s.

Surgery, Gynecology and Obstetrics, 1940, Vol. 70.

Correspondence

Smoking

SIR,—I hope that the universal interest displayed in the subject of Tobacco Smoking justifies me in asking for the hospitality of your columns to debate some of the details in Dr. Baker's highly interesting and comprehensive article in the *Gazette* of December 1st, 1951.

Dr. Baker believes it is the economic factor that explains the modern medical student's exception from the general increase, especially of cigarette smoking. I think this is part, but not the whole, of the explanation. When I was an undergraduate, some 40 years ago, the young man non-smoker was a *rara avis*. In general he was of the goody-goody type, or a crank, who either flaunted his abstinence with an air of superiority, or shamefacedly attempted to conceal his peculiarity. Rather to my surprise I noticed the gradual but conspicuous increase, during the First War and subsequently, of the young male non-smoker, and I have ventured on occasion to express the opinion that it represents a more or less unconscious reaction against the great increase in female addiction.

Into the chemistry of tobacco smoke I am not prepared to enter. I understand that experts are by no means satisfied that nicotine, however predominant, is the only important element. The influence of all sorts of products of combustion may explain the considerable differences between various kinds of tobacco, and of the cigarette as compared with the pipe. It is well recognised that some smokers can tolerate the one but not the other, quite independently of quantity. Incidentally, it may be worthy of note that the oft-expressed defence of the cigarette smoker that he does not inhale appears to gain some support by the observation that the maximum absorption of nicotine (or whatever it is) occurs from the bronchial mucosa, but a great deal, if not the major part of absorption is, I believe, in the mouth. This is certainly confirmed by many smokers who have never inhaled. To me, the variability in susceptibility to tobacco is remarkable. Some men (and probably some women too) appear to have a constitutional or at any rate a readily acquired tolerance. Others, even after years of practice, are affected by small quantities. The effects of withdrawal are also extremely variable. I remember so well the spectacle of one patient condemned—unnecessarily, I thought—by a great cardiologist to refrain from cigarettes for six months, in misery throughout the whole period of deprivation and conscientiously watching the hands of the clock until the six months had elapsed to the last minute. Readers of " The Moonstone " will recall the suffering of Valentine Blake ; and although the picture is highly coloured for the necessary *dénouement*, it is a good example of the profound influence in certain individuals.

On the therapeutic side of smoking there is little enough to recognise, although specious arguments can be advanced. I used to ask M.B. candidates in their *viva* to give examples. This little pastime was particularly amusing to me when Dr. Douthwaite was my co-examiner, for I could remind (or possibly inform) him that in the earlier editions of Hale-White's *Materia Medica* a tobacco enema was included. (I regret to say that I am unable to state whether this form of therapy appears in the modern editions that Dr. Douthwaite now so brilliantly edits.)

The disinfectant action of tobacco smoke is sometimes approbated. Apart from the hyperbolic pleasantry that it is the best preservative of the milk of human kindness, I doubt if it is more than a deodorant. Certainly, smoking greatly reduces one's sense of smell and personally my own particularly acute perception compelled me thus to protect myself from an inevitable element in out-patient practice.

In regard to the alimentary canal, the relation of smoking to duodenal ulceration is of particular significance. My dear friend, Arthur Hurst, was adamant and uncompromising in this (as in most !) matter and rigidly forbade his patients to indulge, especially in cigarettes. It would be very convenient in enabling us to dogmatise if we never encountered a duodenal ulcer in a non-smoker, but I myself am far from persuaded that the association is proved. It seems to me just as likely that the ulcer victim is of the temperamental type

who resorts to cigarettes, and that cause and effect are confused. Apart from this, the influence upon digestion may be both direct and indirect. The assistance towards placidity may assist digestion on a functional basis. Gain in weight following abstinence may be due to improvement in gastric activities generally through removal of a toxin, to better appetite and perhaps absorption throughout the alimentary canal. We may admire the ingenuity of American advertisers who recommend their special "slimming cigarettes", a claim which has in fact a physiological basis since smoking raises the blood sugar.

I am not prepared to discuss the potential influence upon the coronary vessels but I venture to believe that on the subject of athletic efficiency I can speak with some authority. It is accepted as a routine procedure that men drop smoking in "training". Many of the orthodox training regulations which are accepted without question are mere relics of tradition or survivals of details which, however essential or desirable in the past, have long since lost their significance and necessity.

Statistics may well be fallacious. Some years ago an investigation at Aldershot compared the athletic achievements of non-smokers and smokers, and the result was favourable to the former. Had such an investigation been undertaken some 40 years ago, smokers would have been overwhelmingly superior for the reason that I have already given, that at that time practically all abstainers were of the non-athletic type. Direct experiments to show the influence of smoking by employing the same subjects during periods of abstinence and of indulgence are not convincing. The laboratory is useful up to a point. Dr. Baker tells us that Professor Arnott and his research team found that smoking led to "a slight diminution" in respiratory function. To what extent it might reduce athletic efficiency must be problematical, for athletic efficiency depends on the correlation of a number of functions and processes. It must be conceded also that the nervousness and instability of the athlete experiencing an ordeal in anticipation may be allayed by moderate indulgence and that any physical disadvantage may be offset by the psychological gain ; and when athletes seek my advice I accept this aspect of the situation. It is a little different, perhaps, in the case of the super-athlete aiming at the highest distinctions. An Olympic 100 metres may be won by as little as four inches, that is approximately 0·1%. It may not be unreasonable to claim for tobacco that tiny reduction in athletic efficiency.

Yours, etc.,

86, Brook Street,
London, W.1.

ADOLPHE ABRAHAMS.

Acknowledgement

SIR,—Will you very kindly allow me to acknowledge through the *Gazette* the numbers of cards and messages of rememberance that I have received from old Guy's friends this Christmas.

I should like to send them all my thanks and my good wishes for a Happy New Year. Will they please note that I have a new postal area and my address is now re-arranged thus.

Yours, etc.,

Carrickbarrett Lodge,
Pontoon, Foxford,
Co. Mayo, Eire.

EMILY P. MacMANUS.

Guy's Rugger

SIR,—Will you please recify two printing errors in my letter published in the last issue of the *Gazette*.

(1) Dr. "Pye" Myburgh, not Alyburgh.
(2) County teams, not coaching teams.

Team fitness will oft times beat brilliance. Let the existing XV *in toto* get really fit and we shall win matches.

Yours, etc.,

Pipes Place, Shorne,
Nr. Gravesend.

F. T. WILKINSON.

Sport

RUGBY FOOTBALL

Guy's *v.* Old Millhillians

At Headstone Lane. Result—Won 8—3
29th December, 1951

The Christmas vacation and other calls reduced the strength of the 1st XV for this game and considering the fact that Guy's lost the services of two star players during the course of the game, this was a good result.

Conditions were fine overhead but the ground was soft and muddy. Guy's applied strong pressure from the start and heeled the ball from the set scrums. The backs were given several runs and play was kept in the Old Millhillians' half. From one good break through by Osborn, James came near to scoring in the right-hand corner before being bundled into touch. When going down to the ball Howells received a cut eyelid which caused him to leave the field. He did not return. Even with seven forwards Guy's continued to dictate matters. Shortly before half time F. Trist, playing his first game for the 1st XV, put the Hospital ahead with a good penalty goal.

The second half was not very old when Kingston put Guy's further ahead. Coming into the line to make an extra man, Kingston went through a gap in the Old Millhillians' defence and, when confronted by the full back, neatly punted over his head, regained the ball on the bounce and scored under the posts. Trist converted. Soon Pook had to leave the field with a leg injury, but the remaining six forwards stuck to the task manfully. On the few occasions Millhillians got the ball, their backs were too well marked to get away. In the closing minutes they scored a scrambly try in the left-hand corner.

This was a good performance by Guy's under adverse circumstances.

Guy's *v.* Old Merchant Taylors

At H.O.P. Result—Won 5—3
5th January, 1952

This game was played in the morning, due to the England *v.* South Africa game in the afternoon. A muddy pitch slowed down a game which opened with great promise, but which finished raggedly.

Guy's took an early lead which turned out to be a winning score. Osborn cut through beautifully in the centre and scored a good try near the post. G. Screech, playing in the 1st XV for the first time, converted. Against a heavier O.M.T's. pack Guy's heeled the ball from most of the set scrums. O.M.T's. had an advantage in the lines-out where the veteran Huskinson had a good game. Meredith and Burt, particularly the former, did some good work for Guy's in that department. The Oxford Blue, Baker, at outside half for O.M.T's. received close attention from Cremin and Honey and many of these movements were nipped in the bud.

In the second half the standard of play deteriorated and in the end O.M.T's. gained the ascendancy. Guy's had two or three scoring opportunities but they were wasted by poor finishing. On each occasion the movements originated well in the Guy's half of the field. Old Merchant Taylors reduced the lead with a penalty goal following a scrum infringement and the final whistle went with Guy's grimly defending their line.

WOMEN'S HOCKEY

Inter-Hospitals' Cup 1st Round

Guy's *v.* Royal Dental and Charing Cross Hospitals

At H.O.P. Result—Won 5—0

2nd Round

Guy's *v.* London Hospital

At H.O.P. Result—Won 11—1

January — **ACADEMIC**

Exhibition. Surgical Department. "Peptic Ulceration."
Exhibition. Ear, Nose and Throat Department. "Acute Otitis Media."
14th 1.00. Dr. Munro. Clinical Lecture.
17th 1.00. Mr. Wass. Clinical Lecture. "Penicillin—Why it should be on the Dangerous Drugs List."
5.00. X-Ray Meeting. Gordon Museum.
18th 1.00. Dr. Kauntze. Clinical Lecture. "The Treatment of Hypertension."
2.15. Medical Department. Combined Round. Preclinical classroom.
21st 12.00. Dr. W. J. O'Donovan. "The Skin and the Buccal Mucosa." Anatomy Theatre.
1.00. Dr. Crisp. Clinical Lecture. "Present Trends in the Non-operative Treatment of Disc Lesions."
22nd 1.00. Mr. Atkins. Clinical Lecture. "Carcinoma of the Breast."
24th 1.00. Mr. Glover. Clinical Lecture.
5.00. X-Ray Meeting. Gordon Museum.
25th 1.00. Sir John Conybeare. Clinical Lecture.
2.15. Medical Department. Combined Round. Preclinical classroom.
26th 10.00. Surgical Department. Clinico-Pathological Meeting. Clinical Theatre.
28th 1.00. Mr. Murray Falconer. Clinical Lecture.

January — **SPORT**

19th ENGLAND *v.* WALES. (Twickenham.)
26th Rugby 1st XV *v.* Devonport Services. (H.O.P.)
Rugby "A" XV *v.* Norwich. (Norwich.)
Rugby Extra "A" XV *v.* London Transport. (Osterley.)
Rugby Wanderers XV *v.* Richmond "B". (Richmond.)
Rugby "B" XV *v.* V.C.D. Crayford. (H.O.P.)

Hospital Information, etc.

APPOINTMENTS VACANT

The Board of Governors of Guy's Hospital invite applications from registered Dental Practitioners for the following appointments :—

1. **Registrar in Clinical Dental Surgery** with attendance on two sessions per week to commence duties in **March, 1952.**

2. **Registrar in Conservative Dental Surgery** with attendance on three sessions per week to commence duties in **March, 1952.**

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and *Dental Staff in the National Health Service.*

Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1, to whom applications should be sent not later than **8th February, 1952.**

Applications are invited for the post of **Orthopædic Registrar,** whole-time (1st year), with duties at Guy's Hospital and Orpington Hospital. Duties to commence as soon as possible. Forms of application can be obtained from the Superintendent and should be sent in not later than **23rd January, 1952.**

DEPARTMENT OF PSYCHOLOGICAL MEDICINE

Locum Registrar required for period of approximately four weeks. Applications should be forwarded to the Superintendent not later than **15th January, 1952.**

HONOURS

K.C.V.O.

The King conferred on December 14th, 1951, the *honour of Knighthood on Dr.* Geoffrey Marshall, F.R.C.P., and invested him with the insignia of Knight Commander of the Royal Victorian Order.

C.B.E. (Military)

Air Commodore John Conrad Neely, D.M. Oxford, R.A.F.

GUY'S HOSPITAL DENTAL SOCIETY

PROGRAMME—SPRING TERM, 1952

Tuesday, 15th January, 1952. "The 1952 Congress of the Fédération Dentaire Internationale." Mr. De Vere Green.
Film, "Signs and Stages of Anæsthesia."
Film, "N_2O, O_2 and Ether Anæsthesia."
(*By courtesy of I.C.I. Ltd.*)

Tuesday, 29th January, 1952. "Antibiotics in Dentistry." Mr. M. Woolf.

Tuesday, 12th February, 1952. "This may hurt a little . . . " Mr. D. J. Anderson.

Tuesday, 26th February, 1952. Visit of Guy's Hospital Debating Society.

Saturday, 1st March, 1952. Annual Dinner.

Tuesday, 18th March, 1952. "The Organic Constituents of Enamel." Mr. M. V. Stack.

Friday, 28th March, 1952. Professor E. Matthews, of the Turner Dental School, Manchester, will present his film on full denture construction.

Meetings will normally commence at 5.15 p.m. approximately, in the Dental Theatre, being preceded by tea in the lower "Spit" at 4.45 p.m.

BIENNIAL DINNER

The next "Biennial Dinner" will be held at the Connaught Rooms, Great Queen Street, W.C., on Friday, October 3rd, 1952, at 7.0 for 7.30 p.m. Further particulars will be announced in the next issue of the *Gazette.*

The preliminary arrangements will be discussed at the next meeting of the Medical Committee.

APPOINTMENT

Dr. D. M. Carnegie appointed Part-time Consultant Anæsthetist to Guy's and Evelina Hospitals, and to the Thoracic Units in the South-East Metropolitan Region (Brook and Grove Park Hospitals).

ROYAL COLLEGE OF SURGEONS OF ENGLAND

F.D.S.

Mr. K. E. Pringle has been elected to the Fellowship.

UNITED HOSPITALS AMATEUR BOXING CLUB

The Inter-Hospitals Boxing Championships will be held at Seymour Hall, Seymour Place, Marylebone, W.1, on Wednesday, February 13th, at 7.0 p.m.

Ringside seats at 15*s.* and 10*s.* and other tickets at 2*s.* 6*d.* to 7*s.* 6*d.*, may be obtained from Mr. J. H. E. Winston, Medical School, Guy's Hospital, S.E.1.

CHANGES OF ADDRESS

M. D. Cremin, F.R.C.S., D.L.O., 119, East 74th Street, New York, U.S.A.

K. E. Pringle, F.D.S., R.C.S., 64, Wimpole Street, London, W.1, (residence), and 2, Harley Street, London, W.1, (practice). Tels. : Welbeck 6184 and Langham 6220.

I. Yentis, M.D., M.R.C.P., 198, Gloucester Terrace, London, W.2, and X-Ray Diagnostic Department, University College Hospital, London, W.C.1. Tel. : Ambassador 5359.

BIRTH

ROSS.—On December 31st, 1951, at Bromley, to Margaret (née Heath), wife of Allan Ross, B.D.S., M.R.C.S.—a sister for Jacqueline (Vivienne Margaret).

TROUNCE.—On December 15th, 1951, to Janet (née Twistington Higgins), wife of David Trounce, M.D.—a son (Nicholas David).

DEATHS

HANDFORD.—On December 23rd, 1951, Leonard Francis Handford, M.C., L.D.S., R.C.S., of 35, Powdermill Lane, Twickenham, Middx.

MANNERS.—On December 21st, 1951, (suddenly), Frank Drummond Manners, L.D.S., R.C.S., Public Health Department (L.C.C.), The County Hall, London, S.E.1.

SKEELS.—On December 6th, 1951, Percy Bernard Skeels, L.M.S.S.A. 1925, H.M. Coroner for the Metropolitan District of Essex, aged 68 years.

EDS. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1657 *26th January* 1952 *One Shilling*

PASSIM

LATER in this issue will be found a portrait of Sir Geoffrey Marshall whose recent Knighthood and award in recognition of his services to the King have already appeared in the *Gazette*. In offering our congratulations to Sir Geoffrey we feel that it is hardly for us to remark upon his qualities as a physician, for the regard in which he is held at Guy's by all who know him and the fact that at moments of great anxiety he has been called in to advise upon the health of the King and, on a previous occasion, of Mr. Winston Churchill, are sufficiently eloquent of his standing both as a physician and as a man. It is not, however, the first occasion on which a Guy's man has attended a King of this country or a member of the Royal Family. Nor, we trust, is it likely to be the last.

Sir Astley Cooper was probably the first Guy's man to be called into Royal consultation. Towards the end of his life George IV, by then wretched and weakened from disease had a growth upon his head—an osteoma—needing removal, and when no surgeon could be found ready to risk operating upon so debilitated a patient, Astley Cooper was invited to do so and successfully performed the excision. The next important occasion concerned Sir William Gull. In fact, to quote Wilks and Bettany, " The principal event of Gull's life was his attendance on the Prince of Wales (afterwards Edward VII) during his severe attack of typhoid fever." It has been said more than once in biographies of Gull that he was called in owing to his having made a special study of typhoid. In all probability the mistake was made from the fact of Sir Wm. Jenner being an authority on the subject. The truth is that the Prince of Wales, being taken ill at Sandringham, sent for his local doctor, Mr. Lowe, and then telegraphed for Sir Oscar Clayton. The latter sent for Dr. Gull, and shortly afterwards Sir Wm. Jenner was also summoned. It is well known that we are indebted to the latter for the first clear exposition of the disease and its characteristic distinction from typhus. At Guy's the two diseases were associated under one name " common continued fever " and in this light were lectured upon by Bright and Addison. The other physicians also held to the same views ; so when Jenner's papers first appeared they were criticised by Gull adversely, and it was not for some time that he admitted their correctness. After the Prince's recovery Gull was created Baronet.

In addition Gull was nominated as Physician Extraordinary to Queen Victoria herself, an appointment which, it is recorded, was also held at one time by Samuel Wilks. On the surgical side, Guy's was represented by Thomas Bryant who, besides being Surgeon-in-Ordinary to King Edward VII as Prince of Wales, had the privilege of being Surgeon Extraordinary to the great Queen, as well.

The tradition was carried forward into this century by Sir Alfred Fripp. A few years before Queen Victoria's death, and not long after Fripp had qualified, the Duke of Clarence fractured his ankle. Fripp, who was in general practice nearby as a locum, was called in. He quickly gained Royal confidence. In 1898 when the Prince of Wales (afterwards King Edward VII) fractured his patella, he was again called in. In 1900 he was appointed Surgeon-in-ordinary to King Edward VII and during the ten years following received a similar appointment to King George V and to the Duke of Connaught.

In the nineteen-thirties, when King George V was seriously ill, Guy's men were again numbered amongst those attending him, Sir Francis Shipway being required as anæsthetist and Mr. F. D. Howitt being responsible for physiotherapy. Since the end of the first World War the physicians to the Royal

Household have included Sir Arthur Hurst, Herbert French and John Ryle. May the tradition long continue, for if it is the privilege of Guy's men all over the world to serve the King's subjects, it is an honour in which they all especially rejoice when one of their number is called upon to serve the King himself.

The attention of those of our readers who intend to apply for tickets for the Residents' Play is drawn to a letter from the President of the Residents in this issue. It will be particularly helpful to those whose difficult task it is to allocate tickets if they might receive applications as soon as possible.

The Inter-Hospitals' Boxing Championships will take place at Seymour Hall, Seymour Place, Marylebone, W.1, on Wednesday, 13th February, 1952, at 7.15 p.m. All the London Teaching Hospitals are competing. The present holders are Guy's and it is hoped that there will be really good support for our team this year. Tickets for admission, price 15*s*., 12*s*. 6*d*., 10*s*., 7*s*. 6*d*., 5*s*. and 2*s*. 6*d*., can be obtained from the Hon. Secretaries of the respective hospitals or from Mr. J. H. E. Winston, who is Hon. Secretary, United Hospitals' Boxing Club.

A most useful booklet has recently been prepared by the Superintendent's Office, a copy of which is issued to every new in-patient for their guidance. It includes information on almost everything a patient might want to know—from how to vote whilst in hospital to details of the Library and Trolly Shop services. It also includes a useful map of the Hospital. The booklet fills a long-felt want and patients will be grateful alike to who prepared it and to the Guild of Ex-Patients who have financed it.

January — **ACADEMIC**

		Exhibition. Surgical Department. "Peptic Ulceration."
28th	1.00.	Mr. Murray Falconer. Clinical Lecture. "Diagnosis and Treatment of Subarachnoid Hæmorrhages"
29th	1.00.	Dr. Baker. Clinical Lecture.
31st	5.00.	X-Ray Meeting. Gordon Museum.

February

		Exhibition. Surgical Department. "Pott's Disease."
1st	1.00.	Dr. Hardwick. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
	12.00.	Mr. K. Hooper. Dental Clinical Lecture. "The Stigmata of a Dental Surgeon." Dental Theatre.
4th	1.00.	Professor L. J. Witts, M.A., D.M., F.R.C.P. Clinical Lecture. "Splenomegaly and Splenectomy."
	5.00.	Surgical Department. Film. "Technique of Thyroidectomy." Clinical Theatre.
5th	1.00.	Sir Charles Symonds. Clinical Lecture. "Vertigo."
7th	1.00.	Mr. Lawrie. Clinical Lecture.
	5.00.	Surgical Department. Mr. Murray Falconer. Neurosurgical Demonstration. Clinical Theatre.
	5.00.	X-Ray Meeting. Gordon Museum.
8th	1.00.	Dr. Douthwaite. Clinical Lecture.
	2.15.	Medical Department. Clinico-Pathological Meeting. Gordon Museum.
9th	10.00.	Surgical Department. Medico-Surgical Discussion. "Ulcerative Colitis." Clinical Theatre.
11th	1.00.	Mr. Blaikley. Clinical Lecture.

February — **SPORT**

1st	University of London Boxing Club *v.* Army Officers. (St. Bartholomew's Hospital Gymnasium.)
2nd	Rugby 1st XV *v.* Coventry. (Coventry.)
„	"A" XV *v.* Coventry Extra 1st. (H.O.P.)
„	Extra "A" XV *v.* Blackheath Extra "A". (Blackheath).
„	Wanderers *v.* Blackheath Extra "A". (H.O.P.)
„	"B" XV *v.* Blackheath "B". (Sunbury.)
9th	„ ENGLAND *v.* IRELAND. (Twickenham.)

All Guy's men everywhere were pleased when they heard that Geoffrey Marshall had been selected to look after His Majesty the King during his recent illness. They were delighted to know that His Majesty would benefit from the skill, good humour and independent sympathy and understanding for which Geoffrey Marshall is well known at Guy's and outside, and they were equally delighted to hear that His Majesty had been pleased to honour him by making him a Knight Commander of the Victorian Order.

We are sure that His Majesty's " pleasure " was both real and personal and we are delighted that Geoffrey Marshall should have received the only merit award which he would appreciate.

The Place of Psychiatry in Modern Medicine

By D. STAFFORD-CLARK, M.D., M.R.C.P.

The following article by Dr. Stafford-Clark is one of a short series of extracts from a book to be published, probably in July, 1952, in the special Pelican series of Penguin Books Limited. The GAZETTE *is pleased to thank the Directors for their kind permission to publish these advance extracts. It should be emphasised that they are written rather more from the standpoint of the intelligent layman, who has an interest in the subject but no medical training, than for the professional man.*

THE concern of the chapter from which this extract is taken is essentially the place of psychological medicine as a part of the whole field of medical knowledge, and particularly its relationship to other forms of illness and their treatment.

The basis of the psychiatric approach to illness is a consideration not simply of the whole person at the moment when he is seen, but of all that can be known about his background, heredity, and life history. Psychiatry today is rooted in genetics, in biochemistry, in endocrinology, as well as in anatomy and physiology ; it demands, moreover, a knowledge not simply of normal psychology and psychopathology, but some acquaintance with sociology, anthropology, history, and philosophy. Yet the object of this somewhat formidable and even alarming catalogue is in the end a modest one. It has been expressed with wonderful simplicity by a great physician, Trudeau, in these words : " To cure sometimes, to relieve often, to comfort always ; " and this, after all, is the aim to which every doctor, each in his own way, has to devote his life.

There is nothing exclusive about this : no psychiatrist would claim for one moment that the happiness and peace of mind of sick people is a goal to which he alone is dedicated or one whose attainment he alone understands, but he can point with some assurance now to a growing body of evidence which demonstrates not simply that the happiness and peace of mind of sick people is desirable as an end in itself, but that to a greater or lesser extent in every case it is necessary and even indispensable to healing and recovery.

If we turn aside for a while from the great proportion of sick people whose illness presents mental or emotional symptoms, including in this category those whose complaints may be of bodily pain or weakness but who prove on physical examination to have no structural lesion to account for it, and consider the patients with fractures or ulcers or heart disease or high blood pressure, all sufferers whose disability carries with it an obvious and indisputable bodily cause, we find that the same careful and patient study of their lives and personality as a whole will reflect yet one more example of the inseparable unit of body and mind. Doctors have known for many years that anxious, miserable, worried or irritable patients heal slowly and relapse often. With the interest in studying disease as an active continuing process rather than as a static condition of separate bodily organs, medicine in the twentieth century was bound to recognise more and more contributory factors which played their part in varying degree in the course of any particular illness.

This same period has seen a similar development in the study of the mind ; no longer was mental disturbance regarded as a subject which defied all but a purely descriptive approach ; it became possible to see it as something continuously moving and changing. Psychodynamics on the one hand and studies of the physiology of emotion on the other hand paved the way for the integration of psychiatry and general medicine, when physical illness could be studied from a psychiatric standpoint, as well as psychiatric illness from the standpoint of physical change. In this respect both general medicine and psychiatry were only catching up with what is sometimes called common sense or everyday knowledge, although it is unfortunately true that common sense is by no means as common as might be supposed, nor everyday knowledge nearly as widely recognised or understood.

Common sense and everyday knowledge for example tell us that blushing, weeping, laughing, and trembling are all physical states which are produced and maintained by an emotion. When the emotion is continued for a long time the physical changes may themselves become to some degree modified or permanent. After prolonged grief and much weeping you are left with a swollen blotchy face ; you do not regard this as an illness, but it is indisputably a physical symptom and it requires time to get well. You may treat it physically with cold water or cosmetics. One thing you will certainly not do is to doubt or deny its emotional origin, at least to yourself.

The study of bodily changes which appear to be due to or at least frequently linked with emotional states has been undertaken by very many investigators. Upon their results has been erected a body of knowledge which at the present time it is fashionable to refer to as psychosomatic medicine. As an adjective, " psychosomatic " is not particularly objectionable, and it certainly has the advantage over many pieces of technical jargon that its derivation is not a mixture of two languages, or quite meaningless in the language from which it is derived. But where we may take exception to it is in its implication that there is something special about those particular illnesses in which the interdependence of emotion and bodily change has been experimentally demonstrated.

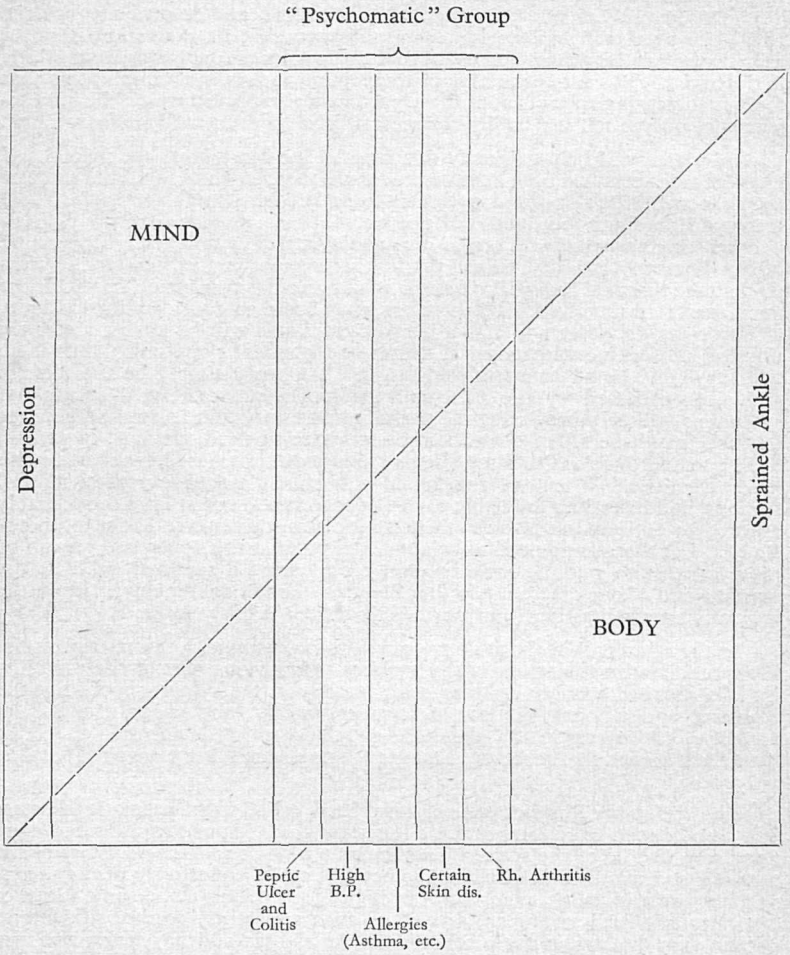
A diagram will help to clarify this point. We can picture the mental and physical sides of human life as two aspects of the same whole, and we can draw them as two triangles fitted together to make one simple rectangle. The diagonal line down the middle of the rectangle is a purely arbitrary division between the two, which are really of course inextricably mingled. If we think of any illness or disability, we can put it at some point on this arbitrary diagram so that the diagonal line will divide it roughly in the proportion in which the two aspects are involved. If, therefore, we choose to consider, for example, a broken leg or a sprained ankle, in most cases this will be almost a entirely physical misfortune with physical causes and physical symptoms ; but there will inevitably be an emotional side to it. This may simply be the distress and anxiety caused by the pain and the inconvenience. In this case the symptoms will be purely referable to the initial injury, but it is not impossible that we may have fallen down because we were worried, anxious, impatient, or in a temper, just as Professor Higgins fell upstairs because he was cross with Eliza Doolittle. When we remember how much of our everyday moods, feelings, and behaviour are liable to be dependent upon or at least considerably affected by entirely unconscious mental processes, this is even easier to understand. But there is no need to belabour the point at this stage, and we can be quite content to put the little column representing a sprained ankle at the extreme end of our diagram so that the area of emotional involvement in the patient is as small as most people would consider it likely to be.

At the other end of the scale we can put, for example, a severe depression. Here the emotional element is the striking and obvious part of the disability but the physical changes are represented partly in the symptoms of impaired digestion and elimination, loss of appetite, weight, and speed of muscular response, and partly in the glandular and biochemical changes in the brain described earlier in the book, changes often reversible by specific physical treatment.

The group of illnesses which have been called psychosomatic illnesses can now be seen to be simply those illnesses which happen to fall somewhere about the middle of the scale. They include such conditions as ulcers of the stomach and duodenum, which are sometimes called collectively peptic ulcers, various forms of colitis, many cases of high blood pressure and some forms of heart trouble such as angina, as well as such apparently diverse ailments as certain skin diseases, allergic complaints like asthma and hay fever, and also migraine and rheumatoid arthritis.

On the physical plane the diversity of these illnesses is not really as great as it might seem. Both angina and migraine, for example, depend for their appearance upon alterations in the state of contraction or expansion of the arteries supplying respectively the heart and certain parts of the brain and its coverings. Moreover, all these complaints have in common the importance of the contribution of the autonomic nervous system (that part of the nervous

system not directly under conscious control and concerned with the automatic regulation of body function) in their development. But the factor they share which from our point of view is the most striking and, incidentally, the most recently established, is the large part which continued emotional stress appears to play in producing and maintaining them. It is, of course, for this reason that they have attracted the most attention when studied by the combined approach to which the name of " psychosomatic " properly belongs. It is probably better, therefore, to speak of the psychosomatic approach to an illness as being a desirable one, rather than to call a particular illness psychosomatic simply because in its case the balance between psyche and soma is the most evident and most evenly divided of those studied so far.



For the rest of this book at any rate, when we talk about psychosomatic medicine or use the adjective psychosomatic we shall be referring to a method of approach based upon an acceptance of the body-mind relationship and all it implies, and not to any particular disease or group of diseases, still less to a particular speciality in medicine open only to a particular kind of doctor. It is in fact a method of approach which no good doctor ignores.

However, before the acceptance now generally agreed of the value of this method and the principles on which it is based could be won, a great deal of work had to be done. The general nature of this work has already been mentioned ; it falls broadly into two groups. The first contains a number of ingenious experiments devised and conducted in the laboratory and usually involving animals, although sometimes human volunteers could be used. One example was the demonstration of the effect in a cat of sudden emotion upon stomach shape and movement : this was achieved by giving the cat a meal mixed with barium, an entirely harmless element which is opaque to X-rays and constantly in use in hospitals for demonstrating the outline of the digestive organs.

After its barium meal this cat stood upon a platform so arranged that an X-ray picture of its stomach could be projected upon a screen, and the normal outline and churning movements of digestion clearly seen. When a dog was introduced into the room, and the cat was gently but firmly prevented from climbing up the curtains, it not only displayed considerable and understandable evidence of emotion, but the whole contour and behaviour of its stomach altered completely ; the valves at each end closed tight while the rest of the stomach sagged and digestive movements ceased. This is the well recognised effect of the secretion of adrenalin through the autonomic nervous system, and its purpose would seem to be to damp down secondary functions such as digestion, in preparation for the violent action by which emotion in the cat is commonly followed.

Medical students have long been taught that secretion of adrenalin prepares the subject for " fight, flight, or fright." It would be more accurate to say, as this experiment conclusively demonstrates, that the role of fright in this response, and its effect, is to produce the reaction rather than to follow it.

Another experiment of some interest along the same lines, but going considerably further and this time involving a human subject is that of Dr. Harold G. Wolff and Dr. Stewart Wolff of Cornell University and the New York Hospital. Employed in their department is a most amiable gentleman, whom I have had the pleasure of meeting personally, and who is called by everybody, Tom. Owing to an unfortunate accident many years ago he cannot swallow his food in the normal way because his œsophagus, the tube leading from the mouth to the stomach, is blocked ; he therefore has to feed himself through a specially constructed opening directly into his stomach through the abdominal wall. Despite this handicap he is, as I have said, a friendly and good tempered fellow. Wolff and Wolff have enlisted his aid in studying the direct effect upon the lining of the stomach of emotional changes.

To do this it has, of course, been necessary to induce such changes in Tom, sometimes without warning him. For example, he was on one occasion told that he was being fired for inefficiency. If this had been true it would have been grossly unjust, and was, anyway, not the kind of thing which would happen to anybody without warning in that happy and admirable department. Tom's reaction was visible and striking, not simply in his face, manner, and speech, but very much so in his stomach as well. He was bitterly resentful and angry ; the lining of his stomach became congested and engorged, even to the point of bleeding at the lightest touch. When the experiment and the trick which it had necessarily involved were explained to him he was at once relieved and reassured, and his stomach rapidly returned to normal.

Further studies on Tom have shown that when he is depressed and dejected his stomach suffers a corresponding change. It becomes pale and grey and covered with mucus. The angry, resentful stomach, and above all the stomach in which the owner's emotional drive has been blocked or frustrated, is ready to bleed and, in those particularly susceptible, to develop an ulcer. Such susceptibility itself is neither wholly physical nor wholly emotional ; like all else in the study of man it is a combination of both. It seems to occur in about ten per cent. of the population, and it is from this ten per cent. that all cases of peptic ulceration are probably drawn. The pale, grey, miserable, dejected stomach is the one whose owner develops chronic gastritis, that miserable blend of dyspepsia and sadness all too familiar to the general practitioner, who knows full well that it is a complaint of mind at least as much as of body.

Similar changes in response to emotion have been demonstrated in the colon by Dr. William Grace, working with Wolff and Wolff, and by other members of the team working on the mucous membrane of the nose. The full details of these experiments which resulted in a tremendous gain in practical knowledge, have been set forth in three monographs which are now well on the way to becoming medical classics. The one which the general reader may find most interesting is that dealing with Tom and his stomach and is called *Human Gastric Function* by Wolff and Wolff, published by the Oxford University Press. Much of the work of the team as a whole exemplifies the manner in which experiments of this sort should be planned and undertaken.

The second group of studies consists essentially in the application of psychiatric techniques to the study of patients with predominantly physical illness in general hospitals. Some of the best known work in recent years was performed by Dr. Flanders Dunbar over twelve years at the Presbyterian Hospital, New York. The primary object of her research was to discover the nature of the correlation between emotions and bodily changes in particular illnesses, and to discover to what extent such correlations were specific to the illness in which they appear. She sought also to discover whether apart from emotional changes themselves there were any particular combinations of stress in the patient's lives or aspects of their personality which produced or predisposed to a specific kind of illness. For all this she had to have controls. She chose patients in the fracture wards for this purpose on the assumption that while they could readily be matched for age, sex, and social position with the subjects of her study, and were, like them, in hospital and facing the same general conditions, they were otherwise likely to be within the average limits of normal emotional adjustment and type of personality.

The results of her study led her to a number of very interesting conclusions. Not only was she able to demonstrate conclusively the role of continued tensions, anxiety, and frustration or resentment in many of the illnesses falling into our middle group in the diagram, but she was also led to conclude that her choice of control group had itself been less simple than she had imagined. Many of these patients proved themselves to have a number of personality characteristics in common, among these being a disproportionately high tendency to be involved in accidents, so-called " accident proneness ", impulsiveness, adventurousness, and a fondness for immediate rather than deliberate action. These characteristics occurred far more often in the control group than could be accounted for by chance alone ; they formed a striking contrast with the highly-developed control of emotional life and behaviour, the restless ambition, strenuous independence, and sustained drive shown by a high proportion of the patients with angina or coronary disease who formed one of the other groups studied.

This has led Dr. Dunbar and her disciples to take a rather more definite position with regard to the correlation, not simply of life stress and emotional reaction with bodily illness, but of certain specific types of personality with certain specific physical illnesses. By no means all her colleagues would go as far as this but the general results of her work and their implications are arresting and important and have afforded experimental confirmation of much that had long been the subject of repeated clinical impressions before her studies established it on a scientific foundation.

In Scotland the pioneer studies of Dr. Halliday into the relative incidence, in different industries and social groups, of various kinds of illness with a psychogenic basis, led him to the concept of what he has called psychosocial medicine. This is essentially an epidemiological approach to the problem. The clinical approach is examplified by the work of Dr. Wittkower, who has immensely enlarged our understanding of the emotional factors in such illnesses as tuberculosis, and acute and chronic disorders of the skin.

If, therefore, we now accept the implications of the psychosomatic approach and its particular importance in the treatment and management of those illnesses falling into the middle group of our diagram, the next question which poses itself inescapably is just how this body-mind relationship works in the production of illness. Are the emotional factors underlying an anxiety state essentially the same or essentially different from those contributing to high blood pressure or a peptic ulcer ? In this field opinions are divided and we

have still a great deal to learn. If we attempt to survey the two main schools of thought on the question we shall discover them to be something like this : one school, in which a number of psychoanalists and some general physicians with an analytic background or training are to be found, believes that the psychodynamic processes underlying all illnesses, but of course contributing to them in widely varying degrees, are essentially the same.

This means, for example, that conflict, repression, and the operation of unconscious complexes are believed to play as large a part in the emotional contribution to a particular physical illness as they undoubtedly play in the production of hysterical illness or an obsessive compulsive state. In these terms I have heard a colleague describe some forms of physical illness as the alternative to psychosis for a particular patient ; he believes that emotional stress resulting from unresolved conflicts emerges through physical channels in one person, and more directly through mental illness in another. Remember that this point of view does not imply that *the whole of the contribution* to the physical illness is emotional ; but it does imply that that part of it which is emotional derives from an identical mechanism to that which might otherwise produce a psychosis. He made this observation when discussing a case, in which a crippling physical illness had been relieved by a brilliant new method of physical treatment only to be followed by the development of a very serious psychosis in the same patient within a matter of weeks. But there were other possible explanations for this disaster : one that the actual physical effect upon the brain of the patient produced by the administration of the physical remedy had released certain ominous mental changes, just as the physical effect on an acute illness upon the brain can lead to delirium ; another, that the complete change in outlook which the promise of cure demanded in a patient who had come to believe that his case was hopeless, had itself disturbed the balance of mind already long distressed.

The other school of thought is rather less dogmatic. While accepting as highly probable that the psychopathology to be discovered in many patients with physical illness is vitally important to their condition and essentially a target for treatment, this school of thought is also prepared to acknowledge that in a number of cases where the emotional contribution to physical illness is equally important, its basis does not seem to involve any psychopathological process at all.

For example ; there are some patients whose skin condition is made worse by anger or resentment. They are perfectly well aware of this connection and moreover they are equally aware of the stresses which provoke them to anger. Like everybody else, they may well have conflicts and repressed feelings. But it does not always seem necessary to invoke these in the explanation of their symptoms. My own view about such people is that the response evoked in them by direct stress of an emotional kind is discharged in part directly through their autonomic nervous system instead of reaching the surface mainly through consciousness, after traversing the higher pathways of the central nervous system in the brain. This response can be thought of simply in terms of energy, whatever that may be. We can detect the passage of such energy in the form of minute electric current through a nerve fibre, and to this extent the hypothesis is not purely allegorical.

If this is so we have emotion producing symptoms in two rather different ways : directly by discharge through the autonomic nervous system, so that the normal physical accompaniment of the emotion is simply heightened or intensified ; indirectly by the operation of unconscious mental processes by which, through failure to deal with a conflict or to accept the unbearably painful nature of the emotion, a kind of secondary tension is set up which may issue either in a hysterical symptom, a symbolic act, a conscious and unpleasant feeling for which no cause can be found, or once again as a disturbance of bodily function when this secondary tension is discharged through the autonomic rather than through the central nervous system.

The practical effect of this view, if it is right, is that while we must seek and treat emotional stress in every patient, we are by no means bound to expect that such stress will necessarily be produced by, or will involve, the mechanisms we have come to recognise in mental illness, every time that it is important in bodily disease. Sometimes there will not only be important

emotional aspects to physical illness ; there will be important unconscious elements in these emotional factors which must be tackled before the emotions themselves can be relieved. In other cases the emotions will be no more and no less complicated than they are in normally adjusted people, but they will owe their particular importance and their need for understanding and relief to the part they are playing in producing or maintaining the illness.

The psychiatrist called in to see the general medical or surgical case does not, therefore, necessarily prepare himself for a plunge into the unconscious ; he does, however, approach the patient with precisely the same care and general interest which the study of his other patients, and for that matter of human beings in general, seems to him to demand. Furthermore, he accepts what he finds as far as he can on its merits in the particular case. Sometimes his special skill and knowledge are further required, sometimes they are not. If the emotional factors can be relieved by simple direct common sense methods he may well not seek to do more. Indeed, increasing co-operation between the psychiatrist and his brothers in the profession of medicine is already leading to two very desirable results : the first is that they are far more ready to call him in than their forefathers would have been ; the second is that they themselves and their students are studying the psychosomatic approach and practising it in many cases with profound success. The logical outcome of all this is that everybody who follows these principles is thereby enabled to approach more closely the simple modest aim of the good doctor . . . " To cure sometimes, to relieve often, to comfort always." And, one might add, whenever possible to try to understand.

When a Man Bites a Dog—That's News

THE business of a journalist is to sell his journal, to keep the regular customers loyal, and to entice those who had had no intention of buying to join their ranks. The biting of a man by a dog is information, the mere recording of an incident that happens frequently enough, and it deserves notice only if no more exciting incidents have reached the office during the day. The biting of a dog by a man is " news ", something bizarre and exciting, something that will catch the eye of the man in the morning train as he scans the headlines in the next man's paper, and tempts him to buy one, something that demands a picture of the dog with its bandaged back resting in the arms of its tiny mistress, and an article on kynophobia by a tame psychiatrist.

Medicine is always worth a place in the home-chat section of the Sunday paper, but deserves a headline only when it is of the man-biting-dog variety. Cancer research is as dull and indigestible as last Sunday's Yorkshire pudding. But the secret cancer remedy discovered by an illiterate farmer and handed on to his son deserves a ten-page illustrated article disclosing everything but the nature of the remedy, the basis of the diagnosis, and the subsequent fate of the cures ! " Cancer claims another victim " is too common and too tragic to make news, but " The man who licked Cancer " provides real red-hot news.

As far as it is possible to get the facts, for the article is written as a story rather than a case record, the account is as follows. The hero is a man of thirty-two. He is described as having " a handsome head, a trim body, and resolute eyes. No one would suspect that here was a man who had fought off four attacks of cancer." In 1944, that is, when he was twenty-five, he was stricken with a violent stomach-ache and had a temperature of 104°. His right side was red and swollen. In ten days the fever subsided and the swelling disappeared.

The following year he hit his groin and had a similar but more severe and prolonged attack. He remained in constant and severe pain, losing weight and energy but doing his duty for well over a year. Then a tumour was removed from his right side. The surgeon told him it was malignant, and that another tumour had been found " inside a kidney ". After cystoscopy, the surgeon announced " That kidney tumour is cancerous. I'd say you have about two weeks to live." Just to cheer him up they showed him to a class as an example of cancer with a two or three weeks life expectancy.

He was subjected to X-ray therapy. In three months the malignant tumour had disappeared. After thirty days' sick leave he came back, and the doctors found a new cancer, this time in his neck. This, too, was " obliterated " by X-ray treatment. After an unspecified interval, he reported to hospital for a check-up, cystoscopy, and a long series of tests. " These tests disclosed that, for the fourth time, he had cancer, in the same region as the first one." (? in the side or the kidney ?) Following further unspecified treatment he was declared okay in March, 1947.

After this distressing story it is pleasing to read that a special bill was passed and signed by the President of the United States, allowing this brave man to return to duty as a naval officer.

Here is a case for diagnosis. What was wrong with the patient ? It may have been cancer, but anything less like cancer it would be very difficult to imagine. Any student who diagnosed cancer on this case history would be referred straight back for further study. Why did the doctors make the confident diagnosis after a story that suggested a bacterial infection, an illness starting at the age of twenty-five with pyrexia and a red tender swelling that rapidly disappeared ? They removed a lump. Did they submit it to section or did they throw it away ? If it was examined, why is there no pathological report in the whole bizarre story ? Cystoscopy was part of the investigation, but it does not seem to have been done by an expert. " Mention the word pain to me," said the patient, admittedly a very brave man, " and immediately I think of that cystoscope. They certainly separate the men from the boys with that one." But the cystoscopist must eventually have acquired skill, for " each day dye was pumped into the kidney so that the cancer could be studied." Finally, the new cancer that appeared in the neck was not excised but merely irradiated. It is unfortunate that this further manifestation of an irrepressible but finally repressed cancer was not removed for section. A detailed report of this unique case, with microphotographs, published in a reputable scientific journal, might have shed a new light on the etiology of cancer, and possibly pointed the way to cure.

About the Park

Many will have read with interest of the success of Dr. G. Hildick Smith in the Amateur Squash Championship. It must be many years since a Guy's man has won this distinction and we offer him our congratulations.

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In planning the Clubs' Union Ball the Clubs' Union Council had to be prepared to stand a loss if support for the venture were not forthcoming, but so successful was the Ball that in fact a small profit has been made.

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The Department of Medical Illustration has two members whose merits have recently been professionally recognised. Mr. S. L. Sweetinburgh has gained his Associateship to the Royal Photographic Society of Great Britain whilst Miss Sylvia Treadgold is the first medical illustrator to have been elected a member of the Society of Industrial Artists.

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A. A. Craigen, who left Guy's to join the Navy in 1949, writes from the West Indies where he is serving in a Frigate. The big hurricane in Jamaica left many casualties to be handled. On visits to another island medical assistance from the Navy was sought by the local doctors. Other Guy's men who have recently left the Borough for service in British West Indies are J. Loeb who is at Granada and T. Rowland who is in Bermuda.

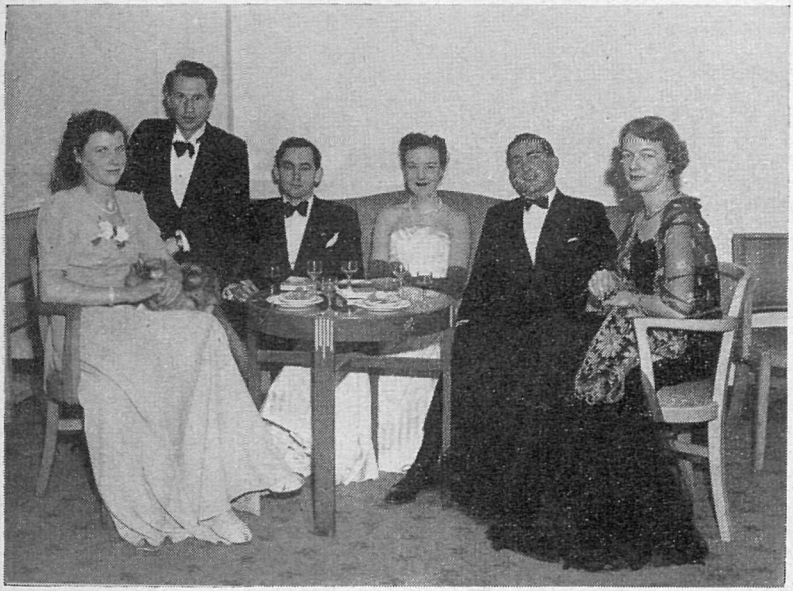
Clubs' Union Ball

The first Ball to be organised by the Clubs' Union took place at the Park Lane Hotel on the evening of Friday, 11th January. Upwards of four-hundred guests, bedecked for the occasion, were announced with sonority by the most elaborate of "toast-masters" and received, charmingly as ever, by Mrs. W. D. Doherty—and Mr. T. Lewis. Our picture adjoining shows them so officiating. The hotel ballroom provided a brilliant scene and among those who took tickets were more than thirty members of the staff (surgeons in prominence and physicians, chiefly, in absentia), a score or so of old Guy's people and nearly three-hundred students and friends. The gathering, therefore, was truly representative, as our exclusive photographs show.

Dinner should have commenced at 8.30. The fact that it did not do so until after 9 o'clock or so was a reflection more on the delights of the cocktail bar—so graciously illustrated by the group on this page including Messrs. K. Scott, K. Kelly, N. C. Brooks and partners, than on any reluctance to feed. At all

events, the menu was magnificent, though its French we hesitate to repeat. Whatever its interpretation the dishes were certainly delightful. An orchestra

played suitable light music, soothing and sentient, throughout the meal, to be followed, simultaneously with coffee, by a dance band under the enthusiastic direction of Mr. Tommy de Rosa. Foxtrot gave way to waltz and waltz to quickstep. The floor was constantly thronged so that when high spirits indulged



in square dancing or, believe it or not, " Stripping the Willow ", congestion gave way to something approaching an orgy. The less energetic thereupon made for the lounge and took the opportunity of refreshing themselves with light conversation and otherwise. Messrs. D. Dodshon, A. P. O. Stewart and friends evidently enjoyed such a respite.

There were those who came to dinner, there were those who came to enjoy themselves, and—there were those who came to dance. For a really suave display of the Charleston there can be no one, either at Guy's or the Hopkins, to equal, let alone excel, the rhythmical refinement of one of our more debonaire surgeons.

Tremendous thanks and credit are due to the organisers of this initial venture, not only for the work they put into it, but also for the anxiety they must have endured until that last week beforehand when ultimately the tickets began to sell. Thank you Mr. Eckhoff and Mr. Large and your committee. Pray repeat the dose another year. We all enjoyed ourselves to the full and so, obviously, did the Superintendent—and Mrs. T. Lewis.

(Photos by Messrs. Lawson & Co.)

The Goad of Venus

By H. ST. H. VERTUE

II

Ἔρως, Ἔρως, ὁ κατ' ὀμμάτων
στάζων πόθον, εἰσάγων γλυκεῖαν
ψυχᾷ χάριν οὗς ἐπιστρατεύσῃ,
μή μοί ποτε σὺν κακῷ φανείης
μηδ' ἄρρυθμος ἔλθοις.

Euripides.

(1.α, στάζων Wecklein, στάζεις Mss.)

Love, Love, whose shafts of arrowy pleasure
Pierce the soul with sweet delight,
When thou armest in thy might,
Raining longings from thine eyes,
Be not nigh in evil guise
Nor come with music out of measure.

I HAVE been describing a peculiarity arising in minds of a certain sort in response to the painful stimulus of unsatisfied sex. Remove the unfavourable circumstances in such a case, and the mind no longer strays. The sexual life that man has laid down for himself is so remote from what Nature obviously intended that mild aberrations in this and some other respects can scarcely be considered abnormal. Young men, for example, who dress themselves up in female finery at charades, theatricals and other such revelry, often experience a mild pleasure in so doing. Gay, recounting his journey to Exeter, tells how he borrowed the chambermaid's night gown, while she washed his shirt.

> The maid, subdued by fees, her trunk unlocks
> And gives the cleanly aid of dowlas smocks.
> If women's gear such pleasing dreams incite,
> Lend us your smocks, ye damsels, every night !

It is interesting to record that in the " Cranford " edition of this poem, 1894, the second couplet has been excised : so great was the Victorian fear of sex ! But there are occasions when adverse influences state had so distorting an effect upon the mind while it was still in a plastic have and was, perhaps, not of a resistant texture, that the alteration in behaviour is more difficult, or even impossible, to lay aside : it is then right to speak of a deviation of the normal instinct. A name that has been given to it is Eonism, from a certain Chevalier d'Eon ; but if this person had ever any importance, he has none whatever now, and we must look for a better example.

The best instance, classical and historical, is Sardanapallus, or Assur-*danin-pal, last king of the first Assyrian empire,* not to be confused with Assur-bani-pal, last king of the second empire, the great and noble Asnapper of the book of Ezra. Sardanapallus was found by a Median general among herds of " harlots " (his harem), spinning the purple with a distaff and weighing out wool to the maidens. He was dressed in woman's attire, and with his sportive glances and supple figure he outdid the whole female race. The general was indignant that a large population of men and warriors, bearing arms and handling steel, should be the subjects of such a *female.* He related what he had seen to his brother-officers, affirming that he would decline to obey any longer one who would rather be a woman than a man. There was a revolt, and Sardanapallus was deposed and committed suicide, immolating himself and all his women on one huge pyre. This vivid account we owe to the Roman historian Justin. Byron, taking Diodorus Siculus as the authority for his play, confuses the two monarchs. His Sardanapallus is a not uninteresting portrait of a cultured, luxury-loving man with pacific notions in advance of his age, courageous at heart and ethically superior to the generals ; but psychologically

Byron misses the mark altogether and poetically the play does not rank high. His genius, presently to blaze up in *Don Juan*, was burning low just then.

In ancient Rome the Sardanapallists formed clubs or societies, where they could indulge their proclivities to the full, with mirror, make-up and elaborate toilette, prayers to Juno and offerings to the Bona Dea. Juvenal, who describes these things, goes on to say that in extreme instances they were afflicted with a passionate yearning to have a child, and he connects this phase with homosexuality. He describes the actual marriage of a young aristocrat, Gracchus, to a musician, the ceremony complete with dowry, bridal veil and long, embroidered wedding gown. With the sex reversed, a similar event took place in our own time, when a woman, who had been posing as " Colonel Barker," married another woman. Female Sardanapallists are not uncommon and they are particularly addicted to soldiering, as the most masculine form of activity that they know. Joan of Arc, who paid with her life for this peculiarity, is the supreme example. But Joan was not inverted and Sardanapallism is not homosexuality, for in the one it is the opposite sex, in the other the same sex that is the object of admiration. Nevertheless, in Juvenal's instance the desire for conception might be accompanied by another for the usual preliminary experience ; or a woman of the stamp of Colonel Barker might entertain that not uncommon feeling, the " penis-envy " : in such cases the two abnormalities would co-exist.

In its most degraded form Sardanapallism is associated with algolagneia or pain-lust. (It is best to preserve the Greek –e– in this word, otherwise it is sure to be mispronounced.) There is, then, a gross travesty of the normal female passivity. Let any one enter the Museum on the middle floor and he will be at once confronted with a grisly show of relics from a case that had a fatal ending. There is also a Sardanapallism associated with algolagneia in the active instead of in the passive form, of which examples are necessarily scarce ; nevertheless, in one of the best, the most famous and the most discussed plays in the world, the *Bacchae* of Euripides, there is a portrayal of it in the character of Pentheus, accomplished with wonderful penetration. In his case the natural desires are not obstructed by external circumstances but are strongly repressed and are therefore driven into these abnormal courses. As king of Thebes he opposes the worship of Bacchus, persecutes the Maenads or women worshippers, imprisons them and takes a sadistic pleasure in chaining their hands. The poet, who misses nothing, makes it plain that Pentheus is still the child of his mother Agave. Presently she catches him in female attire contemplating a mixoscopy and with her band of Maenads tears him to pieces in a Bacchic frenzy.

Instead of enlarging upon the manifold implications of the *Bacchæ* and all its subtleties it will be more pleasant to consider Sardanapallism, before quitting it, in its most decorous and refined shape. In this guise it could well be studied in the picture called " A Prelude by Bach " by Simeon Solomon, which was on view at the admirable exhibition " Ten Decades " held recently at the Suffolk Galleries. In the æsthetic movement of Solomon's day there lurked this vein of Sardanapallism.

> Though the Philistine may jostle, you will rank as an apostle,
> In the high æsthetic band,
>
> If you walk down Piccadilly with a poppy or a lily
> In your mediæval hand.
> And every one will say
> As you walk your flowery way,
>
> " If he's content with a vegetable love which would certainly not suit me,
>
> Why, what a particularly pure young man that pure young man must be ! "

In Solomon's picture the vein is fully revealed. There in an elegant room we see a little gathering of youths and maidens, one of whom is making music at the piano. All are most fair to behold, all wear beautiful garments of soft pink or blue and all are so much alike in appearance, even to the sashes that enclose

their waists, that it would be difficult to tell the sexes apart, if the men had not been adorned with the daintiest knee-breeches instead of with the skirts worn by the girls. They are listening to the prelude with a swooning abandonment quite inappropriate to the music of Bach ; and in the centre of the picture one of the girls is enacting the role of mother, caressing a youth. From the prominence given to that central figure we may guess why Solomon's emotions took the course that they did. Like all persons with poetical trends he must have been strongly attached to the image of the mother : in fact he may not have been able to extricate himself from that too close embrace and so have found a normal love a thing out of his reach. So he would wander perpetually through a golden maze of dreams, fondly pursuing an image that could never become a reality and never experiencing the static pleasure of satisfaction. The pain of want would be his. In Trojan's day or Hadrian's he could have indulged himself with the gold hair-nets and pale green gowns of Juvenal's description, harmless though ridiculous ; but in Victorian London there was not sufficient outlet for him even in his paintings, so he gave up the struggle. Abandoning art, he betook himself instead to a systematic anæsthesia by alcohol ; and so effectively did he manage this means of escape that he lived to the decent age of sixty-five, enjoyed a jolly life in the underworld and successfully resisted all attempts at reform. God Bacchus was his friend, not Euripides' half-savage deity of the germinative force of vegetation and of animals but the jolly Bacchus of Roman days, who could fill a broad canvas of the Renaissance with a rout of nymphs and tipsy Satyrs and chubby Italian Cupids ;

> And old Silenus, shaking a green stick
> Of lillies, and the wood-gods in a crew
> Came blithe as in the olive-copses thick
> Cicadæ are, drunk with the noonday dew ;
> And Dryope and Faunus followed quick,
> Teasing the god to sing them something new.

For know that Bacchus has two sides, θεὸς δεινότατος ἀνθρώποισι δ' ἠπιώτατος, a god most terrible yet most amiable to men.

To return to Tennyson, his aberration was only literary and went no further; but as the adversity that gave rise to it continued unrelieved, new symptoms appeared. When *The Princess* reached a third edition, as it soon did, the poet rather unwisely introduced an additional feature into the character of the prince by making him subject to " weird seizures."

> On a sudden in the midst of men and day,
> And while I walked and talked as heretofore,
> I seemed to move among a world of ghosts
> And feel myself the shadow of a dream.
> Our great court-Galen poised his gilt-head cane,
> And pawed his beard and muttered " catalepsy ".

Today he would probably say, " A form of minor epilepsy, in which consciousness is not lost, but undergoes a brief perversion, in this example a peculiar sense of unreality in the surroundings." Whether Tennyson suffered thus only at this time of stress, or whether the episodes were simply then more obtrusive I cannot say ; but at least he was not inventing but relating a personal experience. We know, then, that the affect, or state of feeling, in Tennyson was now so impinging on the bodily structure that it had a demonstrable action on the brain, one that today we might record electrically with the encephalograph. There is evidence also that during this time of trial the poet was becoming a little hypochondriacal, as many men might do. In some of his letters there are references in vague terms to ill health, and he underwent a mysterious water-cure. As for Emily, she did what other ladies used to do under the circumstances, threatened " to go into a consumption." In *Aylmer's Field* Edith, her counterpart, forbidden all communication with her lover, actually dies of a " low fever," and her death leads to a scorching sermon against the squire in the village church, his lingering end from cerebral catastrophe and the sale and demolition of the Hall.

And where the two contrived their daughter's good,
Lies the hawk's cast, the mole has made his run,
The hedgehog underneath the plantain bores,
The rabbit fondles his own harmless face,
The slow-worm creeps, and the thin weasel there
Follows the mouse, and all is open field.

The Tennysons did not readily forgive.

To part from Tennyson while his mind was in a morbid state through no fault of his own would be altogether unjust. He knew what he wanted, and for ten years he doggedly refused to yield his choice. At last, in 1850, he met Emily Sellwood again, at Shiplake, and in June he married her there, so putting an end to the celibacy that he had endured during ten years that should have been among his best. How this happy event was brought about we do not know, for the too discreet Hallam, beyond remarking that her father attended the wedding, reveals nothing ; and Emily, in her brief memoir, is equally reticent. In the same year Tennyson published the long meditated *In Memoriam* and was lifted to the pinnacle of fame from which he was never dislodged. When the Queen makes you her laureate, keeps a copy of your poem and annotates it herself, when the Prince Consort drives over to tea and subscribes himself " ever yours truly, Albert," why then even a Berkshire Sellwood, if he be your adversary, finds his level. Five years later came *Maud*, the finest of all his poems and one of the best in the language. It belongs to the same class as the tragedies of Shakespeare, the symphonies of Beethoven and whatever else there is from that repeated hearing or reading never grows stale but opens up fresh beauties. The groundwork of the story is his own. There we find the squire, who opposes his sister's marriage and is brutally contemptuous of her suitor, the dreamer, the lover of Nature, the Epicurean philosopher, the man of imagination, Tennyson himself in fact. Objections have been raised against this character : it is said to be too weak ; but the image that good and thoughtful men fashion of themselves is always worse than the reality. The old indignation flashes out ; but Emily was all that he desired, for in his choice he had made no error, and at last he could utter his superb hymn of love fulfilled—

I have led her home, my love, my only friend.
There is none like her, none—

unsurpassed and unsurpassable ! He was forty-six when the book was published, but his lyrical powers were entirely undiminished.

In the *Idylls of the King*, the most important work of his later years, the theme of romantic love enters largely ; in fact they are woven round one central tragedy, the failure to sustain that ideal faithfully.

The children born of thee are sword and fire,
Red ruin, and the breaking up of laws,
The craft of kindred and the Godless hosts
Of heathen swarming o'er the Northern Sea.

So the great poet was true to himself ; and for once in a way in the history of poetry merit was matched with reward, for his poems were immensely successful. Of the detraction of Tennyson that has been going on for half a century I need only say that, inspired as it is by the sense of inferiority, it is useless as criticism, though it may throw some light on the critics and their time. His genius continued to glow until his death at the late age of eighty-three. Ballads such as *Rigpah*, *The Wreck* or *The Revenge*, masterpieces of blank verse such as *Tiresias*, lyrics of the quality of *Early Spring* or *To Virgil* flowed from the pen of a man well on in the seventies. Such charming things as *The Snowdrop*, *The Throstle* and *The Progress of Spring* came later still : the perfect *Crossing the Bar* was written at the age of eighty. Most wonderful of all was it that beneath those venerable hands classical art should take life and blossom anew. Of Demeter he writes,

Once more the reaper in the gleam of dawn
Will see me by the landmark far away,
Blessing his field, or seated in the dusk
Of even, by the lonely threshing-floor,
Rejoicing in the harvest and the grange.

Here is perfection.

It was a great period and only a great poet could have been its mouthpiece. This indeed Tennyson was. It was not only that men of the finest metal sought his friendship nor that the famous paid court to him, nor was it the favour of Royalty nor the warrior's funeral in Westminster Abbey that were the true marks of his greatness, though each and all were just tributes to his genius : it was rather the fact that all men and women of education and good taste read and enjoyed his poetry and found therein what they wanted. Such success as this did not come from chance but from high aim and from the capacity of genius for taking pains. But the Master of Baliol shall declare what he was. " I would have him think that no one has done more for mankind in our time, having found expression for their noblest thoughts and having never written a line that he would wish to blot ; and that the benefit, which he has conferred on the English language and people, will be an everlasting possession to them, as great as any poet has ever given to any nation, and that those who have been his friends will always think of him with love and admiration and speak to others of the honour of having known him." The bard occupied a high place in the life of the nation, when Tennyson held that proud position, and upon him was bestowed the honour that was his due. With all its faults that time had a life and spirit far more fitted for the creation of poetry than our own, and that is why no one can repeat Tennyson's achievements today. At present there are no signs of a change for the better ; yet one should never abandon hope of a revolt against the thought of the last fifty years and the leaders who have wrought so much ruin in the name of " progress."

Turn, Fortune, turn thy wheel with smile or frown ;
With that wild wheel we go not up or down ;
Our hoard is little, but our hearts are great.

APPOINTMENTS BUREAU

That the Appointments Bureau is a flourishing and progressive organisation is clear from the following figures, kindly furnished by Mr. J. H. E. Winston, the Appointments Officer.

	June, 1950/*May*, 1951 12 *months*.	*June*, 1951/*Dec.*, 1951 6 *months*.
MEDICAL		
House Surgeons	43	27
House Physicians	17	16
Senior Appointments	10	15
Hospital Locums	62	28
G.P. Locums	75	67
Ships' Surgeons	—	4
Trainee Assistantships	2	3
Assistantships with View	11	8
Student House Appointments	—	3
Total	220	171
DENTAL		
G.P. Locums	12	7
Practices	1	2
Assistantships	2	12
Assistantships with View	11	14
House Surgeons	5	5
Total	31	40

Correspondence

Residents' Play

SIR,—May I, through these columns, inform your readers that the Residents' Play will be held this year in the Physiology Theatre from Monday, 18th February, until Friday, 22nd. As always, there will be no charge for admission, but we hope to meet the ever-growing costs of production by donations.

The demand for tickets is usually greater than the supply, so that I would be grateful if those who intend to apply for them would do so as soon as possible so that they may be allocated, and I should like to apologise in advance for any who may be disappointed.

Yours, etc.,
W. GILBERT,
President of the Residents.

Guy's Rugger

SIR,—In view of recent correspondence the following quotation from Passim of March 11th, 1893, may be of interest :—

" We have lost the Cup. How in the future are we to get more weight forward while the Dean is almost persuaded to advertise free education for heavy weights who play forward ? "

Five years later, in March, 1898, the Rugby Cup was won for the first time for 10 years.

Yours, etc.,
W. M. MOLLISON.

Picket Hill,
Ringwood, Hants.

Memories of Guy's

SIR,—You have published a number of reminiscences of Guy's recently, which must have set many of us of an older generation thinking. I have intended to write a book for many years, but it is still very much embryonic, and in case it never reaches full term I should like to put on record two stories about the late Mr. L. A. Dunn, always known to men of my time as " John ".

John was an examiner in the Conjoint Surgery, and though he never examined Guy's men in the vivas and clinical cases he used to stand by as assessor, and as long as you were answering correctly he used to nod his head slowly and rhythmically. But the moment you made a mistake the movement came to an abrupt end, and you knew you were wrong.

I was up for my short cases, and the examiner was Bilton Pollard. Old John stood by and nodded me along very happily through a number of cases. I was then shown a young man with a semi-flexed and fixed knee. I gave a number of possible causes for this state of things with John nodding all the time, and at last, pressed by the examiner for anything more, I suggested that the patient might have been kept in a splint too long, neglected and allowed to get stiff. John turned abruptly to his right, facing the examiner, and nodded his head violently in *his* direction ! Had he pointed a finger at him he could hardly have made it plainer that the case was one of his—the examiner's —own, and that I was practically accusing him of negligence. It was a priceless moment never to be forgotten.

The second story was told us by John himself at a clinical lecture or a firm round, I forget which. He described how he was called down to Brighton in consultation, to see a very fat Jewess with a dislocated hip. Assisted by the family doctor he succeeded in reducing the dislocation with considerable effort, and was then asked his fee. He named this and the family doctor went to settle with the relations, only to return rather crestfallen and announce that they considered the fee too much, and were unwilling to pay. " All right," said John, " You go back and tell them that if they won't pay *I'll put her hip out again !* " The money was forthcoming immediately.

Yours, etc.,
G. DUNDERDALE.

P.O. Box 642,
Pietermaritzburg,
Natal, South Africa.

P. B. Skeels

SIR,—As a contemporary of P. B. Skeels, the coroner for the Metropolitan district of Essex, may I be allowed to express my regret at the passing of that genial soul ? My generation at Guy's had its quota of the Johnny-head-in-air type who appointed themselves " arbiters of elegance " and saw you only when it suited their convenience, but Skeels was not of them. He was always ready to stop and have a chat and the immediate neighbourhood became at once illumined by his happy smile. Many of my generation (1919–25) were several years older than the youngsters coming straight from school, but Skeels, being even some 10 years older, seemed almost patriarchal. What a depth of wisdom was concealed behind that jocund face his later career was to show.

Yours, etc.,

G. L. DAVIES.

Missenden Lodge,
Withdean Avenue,
Dyke Road Avenue,
Brighton, 5.

CLINICAL DEMONSTRATION

It is proposed to hold clinical demonstrations, timed to fit in with the post-graduate lectures of the Department of Medicine, but open to all members of the Hospital both undergraduates and post-graduates, in the York Clinic on the following Wednesdays at 5.30 p.m. : February 13th, March 12th, April 16th, and on subsequent Wednesdays to be determined. The general purpose and orientation of these demonstrations will be those aspects of psychiatry which have most to do with general medical or surgical problems. The first demonstration will be on Wednesday, February 13th.

REVIEW CORRECTION

" Atlas of Histologic Diagnosis in Surgical Pathology," by Neuberger.

In the published review 100 illustrations in this book were mentioned, whereas there are in fact 850 and the price was unfortunately given as 81*s*., when in fact it should have been 84*s*.

Review

Cunningham's Textbook of Anatomy. Ninth Edition. Edited by J. C. BRASH. Oxford. *Price* 90*s*.

The new edition of this standard work, which marks the centenary of the birth of its originator, will be a welcome addition to the library of senior anatomy students.

Despite the variety of its contributors, the text throughout is eminently readable, and in all sections enunciates the fundamentals in an easily assimilable form. The sections on the central nervous system and on joints are outstanding, but it is irritating to find that after an excellent introductory section on Embryology, the remainder of this subject has been relegated to small print at the end of each system. There are many refreshing excursions into the more controversial points, and these are ably abetted by the up-to-date bibliographies at the end of each section.

The illustrations are more numerous than ever, and although some of them compress too much detail into too little space, particularly in the section on surface anatomy and in some of the representations of the head and neck, they are for the most part thoughtfully arranged with regard to the text. Some of the colour plates lack depth, but the illustration of muscles in action and many radiographs throughout the book serve to emphasise the trend towards function and to overcome the barrier between academic and clinical anatomy.

On the whole there are few works which attain this overall standard of illustration.

It would be superfluous to recommend this book. Its place in the annals of anatomy is established. F.G.E.

Annual Dental Clinical Meeting

1ST MARCH, 1952

PROGRAMME

Morning Session (10 a.m.—12 noon).

PHYSIOLOGY LECTURE THEATRE (Medical School) at 10 a.m.

"Murder" .. .. Dr. Keith Simpson

THEATRE No. 4

An Operation (10 a.m.—11 a.m.) .. .. Mr. H. H. Kenshole.
Anæsthetist : Dr. D. M. Carnegie.

Hare Lip (11 a.m.—12 noon) .. .. Mr. N. L. Eckhoff
Anæsthetist : Dr. W. S. McConnell

THEATRE No. 3

Removal of an Impacted Third Molar (10 a.m.—11 a.m.) Mr. A. R. F. Thompson
Anæsthetist : Dr. W. S. McConnell

An Operation (11 a.m.—12 noon) .. .. .. Mr. S. H. Wass
Anæsthetist : Dr. T. A. B. Harris

DENTAL DEPARTMENT

Ground Floor

X-RAY DEPARTMENT

Exhibit of Radiographs .. .. Dr. F. L. Ingram

DEPARTMENT OF PREVENTIVE DENTISTRY

Bacteriological Exhibits .. .. Mr. A. Bulleid and Mr. C. W. T. Shuttleworth

Gingivectomy by Electro-surgery .. .. ..
Demonstration of Clinical Cases .. .. } Mr. R. D. Emslie
Display of Colour Transparencies .. .. .. } Mr. B. W. Pett
Oral Hygiene Education for the Patient .. .. ..

First Floor

DENTURE ROOM AND PROSTHETICS LABORATORY

Clinical Cases .. .. Professor H. R. B. Fenn
Plaster Impressions .. .. Mr. R. D. Gain
Alveolectomy .. .. Mr. M. Malleson
Plaster and Pumice Bite Blocks .. .. Mr. P. B. Morris

DEMONSTRATION ROOM

Porcelain Jacket Crown Technique .. .. .. Mr. K. Hooper

HISTOLOGY LABORATORY

Use of Colour Photography in the teaching of Histology Mr. Dudley of the Histology Laboratory

DEPARTMENT OF DENTAL MEDICINE

Pathological Specimens and Sections .. .. .. Professor M. A. Rushton
Organic Constituents of the Teeth .. .. .. Mr. M. V. Stack

DENTAL PHOTOGRAPHIC DEPARTMENT

Exhibition of Colour Transparencies and Monochrome Prints of Clinical and Technical interest .. .. } Mr. A. D. Robinson and Mrs. Small, Photographer

Second Floor

DEMONSTRATION ROOM

An Average Morning Clinic .. .. Mr. G. B. Pritchard

CLINICAL ROOM

Operation under Local Anæsthesia .. .. .. Mr. J. W. Mansie

CUBICLE 3 AND 4

Difficult Extractions .. .. Mr. C. I. Hagger
Amalgam Fillings .. .. Mr. A. D. Robinson

PROFESSOR'S ROOM

Operative Dental Surgery .. .. Professor W. E. Herbert

CONSERVATION ROOM

Preparation of Teeth for Porcelain or Acrylic Faced Gold Crowns .. .. Mr. W. A. Vale (in his room)

Some Experiments in Capping Adult Tooth Pulps with Calcium Hydroxide .. .. Mr. R. J. Hart

The Class IV Restoration .. .. Mr. A. H. R. Rowe

Silicate Cement .. .. Mr. D. F. L. Cook

CHILDREN'S DEPARTMENT

Orthodontic Cases under treatment will be shown by :
Mr. R. Ernest Rix, Mr. K. E. Pringle, Mr. J. Tulley, Mr. H. Richards, Mr. M. A. Kettle, Mr. A. C. Campbell and the Orthodontic Assistants.

Stages in the Construction and Trimming of a Monobloc — Mr. H. Richards

Short Cine Films or Oro-Facial Behaviour with Orthodontic Implications — Mr. E. Gwynne-Evans

PRE-CLINICAL CLASS ROOM

Exhibition of Students' Work.

AFTERNOON SESSION (2 p.m.—4 p.m.)

THEATRE No. 3 (1.45 p.m.)

Maxillary Mobilisation with Bone Graft, for Old Cleft Palate — Mr. Patrick Clarkson
Anæsthetist : Dr. P. J. Helliwell

DENTAL DEPARTMENT

Ground Floor

X-RAY DEPARTMENT

Exhibit of Radiographs — Dr. F. L. Ingram

DEPARTMENT OF PREVENTIVE DENTISTRY

Bacteriological Exhibits — Mr. A. Bulleid and Mr. C. W. T. Shuttleworth

Gingivectomy by Electro-surgery
Demonstration of Clinical Cases
Display of Colour Transparencies
Oral Hygiene Education for the Patient — Mr. R. D. Emslie and Mr. B. W. Pett

First Floor

DENTURE ROOM AND PROSTHETICS LABORATORY

Spoon Dentures — Mr. R. D. W. Stileman

Peripheral Design for Full Dentures in Relation to Stability — Mr. A. Rand

Vertical Height — Mr. A. Ferrari

HISTOLOGY LABORATORY

Use of Colour Photography in the Teaching of Histology — Mr. Dudley of the Histology Laboratory

DEPARTMENT OF DENTAL MEDICINE

Pathological Specimens and Sections — Professor M. A. Rushton

Organic Constituents of the Teeth — Mr. M. V. Stack

DENTAL PHOTOGRAPHIC DEPARTMENT

Exhibition of Colour Transparencies and Monochrome Prints of Clinical and Technical interest — Mr. A. D. Robinson and Mrs. Small, Photographer

Second Floor

DEMONSTRATION ROOM

Minor Operative Procedures — Mr. R. O. Holland

CUBICLE 3 AND 4

Acrylics—Recent Advances in Acrylic Conservative Technique — Mr. J. W. McLean

PROFESSOR'S ROOM

Clinical Cases — Professor W. E. Herbert

CONSERVATION ROOM

Clinical Cases of interest will be shown by members of the Dental and Surgical Staff.
Clinical cases of dental interest will also be shown by Dr. L. Forman, Physician in Charge of the Skin Department.

Preparation of Teeth for Porcelain or Acrylic Faced Gold Crowns — Mr. W. A. Vale (in his room)

Pinlays — Mr. K. S. Sunaway

Interlocking Inlays — Mr. A. A. Robinson

CHILDREN'S DEPARTMENT

Orthodontic Cases under Treatment will be shown by :
Mr. R. Ernest Rix, Mr. K. E. Pringle, Mr. J. Tulley, Mr. H. Richards Mr. M. A. Kettle, Mr. A. C. Campbell and the Orthodontic Assistants.

The Problem of the Fractured Incisor — Mr. M. A. Kettle

A Range of Useful Orthodontic Appliances (Removable) — Mr. J. Tulley

PRE-CLINICAL CLASS ROOM

Direct and Indirect Inlays — Mr. A. A. W. Fooks and Mr. R. E. Feaver

Exhibition of Students' work.

Tea will be served on the First Floor of the Dental Department at 3.45 p.m.

Sport and Hospital Information, etc.

RUGBY

Guy's *v.* Wasps

At H.O.P. Result—Won 9—8

12th January, 1952

The weather was fine but a wind blowing diagonally across the field and a sticky pitch contrived to make conditions somewhat tricky.

The score of three penalty goals in Guy's favour does not detract from the merit of the victory. The Guy's forwards, although much lighter than their opponents, were much quicker on the ball and so harassed the Wasps' half-backs that their line never looked like working smoothly. In the tight scrums Guy's were outweighed but the hooking of Labuschagne has seldom been better and with possession of the ball Guy's were able to dictate matters in the early stages. Howells kicked two glorious penalty goals (and hit the crossbar with another kick) and Wasps scored a try in the first half.

In the second half Wasps had the initiative most of the time. Their extra weight in the scrum was certainly tiring the Hospital pack. Wasps came near to scoring tries on two occasions following indecisive tackling by the Guy's threequarters. From a melee near the Guy's line Wasps obtained a drop goal to make the scores level. Guy's went all out for a winning score and this was achieved when Howells kicked his third goal of the afternoon following a blatant obstruction by a Wasps defender near their "25". Throughout the game Howells played a stirling game at full-back.

The recent improvement in the Guy's team augers well for the Cup. The team, however, is not physically fit for gruelling Cup rugby and the threequarters must go up together in defence and mark their opponents more closely.

Team: W. J. Howells; E. O. James, S. C. C. Scott, J. W. Osborn, J. C. Kingston, G. D. Thomas, G. L. S. Rankin; J. W. Kirkbride, N. A. Labuschagne, D. K. Fairweather, J. C. Burt, H. C. Meredith, B. J. Cremin, C. T. M. Wilson, D. P. Honey.

Guy's A" XV *v.* Wasps Vandals

At Sunbury. Result—Lost 0—8

GUY'S HOSPITAL RUGBY FOOTBALL CLUB

A

BALL

will be held at

BUSH HOUSE, ALDWYCH

on

THURSDAY, 21ST FEBRUARY, 1952

Dancing 7.30—12 to the Saracens Dance Band

Double Tickets 25*s.* (including buffet)

Obtainable from

C. W. Pook, E. O. James, K. P. Walker, G. Screech, D. A. Coppock, W. M. Boyle, D. C. Lee, D. L. H. Clark, E. D. Keen, R. K. Knight, J. C. Burt, G. L. S. Rankin.

MISSING BOOK

Someone has borrowed and forgotten to return the *Annual Review of Physiology*, Volume XI (1949). The owner, so dispossessed, is Dr. A. Shore, and she would be very grateful if this book could be returned to her in the Chemistry Department, Guy's Hospital Medical School.

APPOINTMENTS VACANT

The Board of Governors of Guy's Hospital invite applications from registered Dental Practitioners for the following appointments:—

1. **Registrar in Clinical Dental Surgery** with attendance on two sessions per week to commence duties in **March, 1952.**

2. **Registrar in Conservative Dental Surgery** with attendance on three sessions per week to commence duties in **March, 1952.**

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service.

Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1, to whom applications should be sent not later than **8th February, 1952.**

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Applications, accompanied by copies of three recent testimonials, should reach the Hospital Secretary not later than first post on **Thursday, 7th February, 1952.**

Applications are invited for the post of **House Surgeon,** vacant on the **1st March, 1952** (second or third post). The duty for the first two months will be in the **Casualty Out-Patients' Department.** The post is tenable for a period of six months and is recognised for the D.C.H. Salary at the rate of £400 or £450 a year, according to experience, with a deduction at the rate of £100 a year for residential emoluments.

Applications, stating age, nationality, qualifications (with dates), and accompanied by copies of three recent testimonials, should reach the Hospital Secretary by the first post on **Thursday, 7th February, 1952.**

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December, 1951

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K. M. Citron	H. J. Goldsmith
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* Mark of Distinction, University Medal.

Pathology (Branch II)

B. J. Stevens

Midwifery and Diseases of Women (Branch IV)

J. G. Holman

B.D.S.

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A. N. Greenwood	Annette F. P. Pountain
Shirley A. Hutchinson	P. L. Vaughan
J. A. T. Kamps	

Second Examination in Dental Surgery : Part II

December, 1951

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J. J. Hall	D. R. Taylor
I. M. Hauldren	D. E. G. Thomas
E. W. Lunn	W. R. Thomas
B. C. Rich	P. J. Willard
P. S. Smith	

Third Examination in Dental Surgery

December, 1951

Pass

J. S. Tisdall	J. M. Wood

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A. S. Atkinson	D. M. McLaren
S. Bacchus	F. H. Muir
J. G. H. Billison	R. Neville
J. F. Groves	H. Pambakian
Annie Hanegraaff	Pauline J. Sanderson
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J. H. Kendall	K. A. Watmore
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N. W. Nicholson	

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December, 1951

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*E. J. Stacey

Pathology, Bacteriology and Forensic Medicine

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* Have completed the examination

UNIVERSITY OF OXFORD

B.M., B.Ch.

Michaelmas Term, 1951

Medicine, Surgery and Midwifery

W. T. Barrett	M. S. Compton
C. F. Bolton	J. A. Smith

UNIVERSITY OF CAMBRIDGE

M.B., B.Ch.

Michaelmas Term, 1951

(Old Regulations)

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*G. B. Davison *P. S. Greaves

(New Regulations)

Part I. Pathology and Pharmacology

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M. H. H. Bishop
*A. P. Blower
J. E. Brett
*I. H. Kerr
*D. B. Murray
J. O. Ojukwu
D. N. H. Owen
W. N. B. Parker
G. L. S. Rankin
J. M. Rigg

(Old Regulations)

Part I. Surgery, Midwifery and Gynæcology

D. M. E. Allan
H. C. Cunningham
J. Liddell
P. J. Lyne
W. A. G. Roper

(New Regulations)

Part II. Principles and Practice of Physic

L. J. Bishop
*A. P. Blower
R. D. France
H. W. S. Francis
N. Gee
R. D. Hernaman-Johnson
A. H. R. Hewett Clarke
*I. H. Kerr
J. A. McHardy
*J. A. J. Smith
B. G. S. F. Vergano

Surgery

*I. H. Kerr
B. G. S. F. Vergano

Midwifery and Gynæcology

N. Gee
A. H. R. Hewett Clarke
*I. H. Kerr
J. A. McHardy
G. E. Sharp
B. G. S. F. Vergano

* Have now qualified M.B., B.Ch. Cambridge.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

F.R.C.S.

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Robert Owen

L.D.S.

First Examination

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J. A. T. Kamps
Shirley M. Kanaar
D. M. Lawrence
C. B. G. Major
J. Metcalfe
Annette F. P. Pountain
J. W. Riley
D. Scott
N. P. Thomas
P. L. Vaughan

Special Anatomy and Physiology

A. S. Baker
C. J. Booth
G. H. G. Bradley
A. N. Greenwood
Shirley A. Hutchinson
J. A. T. Kamps
D. M. Lawrence
C. B. G. Major
J. Metcalfe
Annette F. P. Pountain
D. Scott
A. R. F. Segerdal
N. P. Thomas
P. L. Vaughan

L.D.S.

Second Examination
December, 1951

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D. J. Baynon
J. E. Blinkhorn
J. M. Cautley
B. S. H. Cornhill
R. S. Crisp
P. Davies
R. Ebsworth-Snow
V. C. Evered
S. C. Jack
D. Lindsey
D. M. Middleditch
J. F. Pike
A. E. F. Stearn

PAPERS BY GUY'S MEN

Brock, R.C. Discussion on the Surgery of the Heart and Great Vessels. *Proc. R. Soc. Med.*, 1951, **44**, 995.

Campbell, Maurice. Discussion on the Surgery of the Heart and Great Vessels. *Proc. R. Soc. Med.*, 1951, **44**, 1003.

Fry, Sir William Kelsey. Discussion on Osteomyelitis of the Maxilla. *Proc. R. Soc. Med.*, 1951, **44**, 1032.

Gill-Carey, C. Operative Treatment of Chronic Frontal Sinusitis. *Proc. R. Soc. Med.*, 1951, **44**, 1019, 1021.

Grant, R. T., and Reeve, E. B. Observations on the General Effects of Injury in Man. *Spec. Rep. Ser. med. Res. Coun., Lond.*, 1951, No. 277.

Harrison, D. F. N. Exostosis of the External Auditory Meatus. *J. Laryng.*, 1951, **65**, 704.

Hayton-Williams, D. S. Discussion on Osteomyelitis of the Maxilla. *Proc. R. Soc. Med.*, 1951, **44**, 1032.

Jacoby, N. M. Discussion on the Treatment of Congenital Hypertrophic Pyloric Stenosis. *Proc. R. Soc. Med.*, 1951, **44**, 1055.

Mitman, Maurice. Health Centres in Hospitals. *Brit. med. J., Suppl.*, 1951, ii, 261.

Owen, R. D. Discussion on the Value of Biopsy in Diagnosis and Treatment of Diseases of the Nose and Throat. *Proc. R. Soc. Med.*. 1951, **44**, 1028.

Shaw, A. Batty. Hæmoglobinuria in Typhoid Fever. Report of Two Cases. *Lancet*, 1951, ii, 813.

Swift, P. N. Terramycin in the Treatment of Pneumonia in Children. *Proc. R. Soc. Med.*, 1951, **44**, 1066.

Swift, P. N. Polymyxin in Influenzal Meningitis. *Proc. R. Soc. Med.*, 1951, **44**, 1067.

Symonds, Sir Charles. Fits and Faints. *Canad. med. Ass. J.*, 1951, **65**, 422.

Tickner, A. Inhibition of Amine Oxidase by Antihistamine Compounds and Related Drugs. *Brit. J. Pharmacol.*, 1951, **6**, 606.

Whimster, W. S. The Value of Drugs in Heart Disease. *Med. Pr.*, 1951, **226**, 558.

Wildman, J., and others. The Outbreak Due to Salmonella Wien. *Mon. Bull. Min. Hlth.*, 1951, No. 10 (Aug.), p. 190.

Wilson, Edric. Mediastinal Goitre. *Brit. J. Surg.*, 1951, **39**, 120.

BIRTHS

DENNY.—On December 19th, 1951, to Pauline (née McEntegart), S.R.N., S.C.M., wife of Douglas Denny, B.Sc., Ph.D.—a sister for Michael.

INGRAM.—On January 11th, 1952, to Mary (née Woodhams), wife of Frank Ingram, D.M.R.D.—a sister for David, Carol and Robert (Judith Sarah).

HART.—On January 9th, 1952, in Victoria Ward, Guy's Hospital, to Penelope (née Ellis), wife of R. D. C. Hart, M.B., B.S.—a fourth son.

MARRIAGES

BEARD—HOCKEY.—On December 8th, 1951, at All Hallows, Wellingborough, Randolph Gilbert Beard, M.A., M.B., B.Ch., to Mary Davies Hockey.

MASTERS—NEWLAND.—On January 5th, 1952, at St. Mary's Church, Bromley, Kent, Edgar James Masters, M.B., B.S., M.R.C.S., L.R.C.P., to Jean Newland.

DEATH

MILLER.—On December 31st, 1951, William Henry Miller, M.D., F.R.C.S., M.B., B.S., Senior Surgeon, Bedford County Hospital, aged 70 years.

EDS. { R.G. / P.A.Z.

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GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

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PASSIM

WE record with great sorrow the passing of our beloved Monarch, King George VI. His death which occurred suddenly this week is a personal loss to everyone of us. His life and health were spent completely in the service of his country. Serious illness, grave operation, but good immediate recovery had given hope that long and quiet convalescence might lead to renewed health. Though few doubted the severity of the disease His Majesty's death is a tragedy and a shock which leaves no one untouched.

Our deepest and most loyal sympathy goes to the Queen, to Queen Mary and to the Royal Family. May the love and affection of this whole Realm support them in their great loss. May it sustain our new Queen now called upon to bear his burden and may it lighten her sorrow as well as ours in the death of so good a father and so fine a man.

IN the past few years much has been written on the subject of the increasing world population. Various warnings have been uttered on the fearful famines which may be ahead if food production does not greatly increase and if the progressive increase in the population is not checked. The doctrine of Malthus is invoked to show that even if food production were increased the population would only increase still further in advance of it. The latest book on the subject* whose review by Mr. W. Arthur Lewis, Professor of Political Economy in the University of Manchester, appeared in the Sunday Press last week, deserves the attention of doctors and all others interested in the problem of world food supplies.

Current argument, in brief, runs as follows. There are those who say that much of the world's potential food resources are not yet tapped and therefore that there need be no famine. There are others who say that the world's population is increasing so much that in a few decades the limit of such resources will be reached. Estimates of the potential cultivable acreage of earth and the future population of the world vary according to different views but probably a figure of between one-third and one-half of the world's land surface is a reasonable figure to envisage whilst a population figure of about two thousand five hundred million with an annual increase of between twenty and thirty million is likely to be generally accepted.

What does not gain general acceptance, certainly not with us, are the deductions drawn from these figures. Any estimate of the food position, say, fifty years hence must take count not only of increases in population and land cultivation, but also of vast technical advances in the manufacture and production of foodstuffs likely to be made during this period. Few pessimists, for example, take proper count of the oceans of the world with plant life as well as fish comprising huge sources of food supply. Many of the deserts of the world were not so always and need not always be so. There are rivers flowing beneath the Sahara draining the rains from the North African Mountains. There are many parts of the Australian Desert where water is available for the cost of sinking an artesian well. The richness of such lands, once irrigated, may be seen where the Colorado River overflowed into the Californian Desert and where market gardening, as profitable as any to be found, now flourishes. Nor is it only in the natural sources of food that great increases may be hoped for—food in increasing quantities may be made in factories. A time will surely come, probably within the next fifty years, when atomic power will provide energy more cheaply than oil, coal or water does now. One effect of this may well be to make manufactured fatty, and perhaps carbohydrate, foods available at smaller cost, and another to cut the cost of fertilisers.

Yet great as are the possibilities for increased food supplies there are dangers, too. It would be most unwise, in our opinion, if the feeding of huge populations in one quarter of the world depended entirely upon vast tracts of land cultivated in another. The problem of transport, and of currency, the sway of politics, all too evident these last few years, might well deprive the needy of vital food and it is equally important in the solution of this problem, we believe, to raise by every means the quantities of food grown in the areas *where it is to be consumed.* Mechanisation is but part of the solution for there are still many tracts of land better cultivated by the most efficient of all machines—man himself—a fact which the failure of the " ground-nuts " scheme brought out. Fertilisers, forestry, pest destruction, medical services, education in good husbandry, development of new varieties of seed and breeding of better stock—all these are no less important. In this, as in few other problems, can science serve well the mankind she sometimes threatens to destroy.

We are convinced that there is no reason why populations should live under the constant threat of famine, but—to quote Mr. Lewis's final words, " To reform the agricultural methods of the world's peasant farmers is an immense task, but it is not beyond our resources. It will have to be tackled if production is to outgrow population, so that living standards may rise and the growth of population be checked. This is the supreme task of the second half of the twentieth century."

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* " The Geography of Hunger," by J. de Castro (Gollancz, 18*s.*).

The Surgical Significance of Pancreatic Disease*

By R. H. FARRELL AND J. L. TURK

HISTORY

REGNER DE GRAAF of ovarian fame, who lived in Holland from 1641 until 1673, was the first to make a study of the pancreas and its secretions. Two hundred years later, in Vienna, a physician named Mondiere was carrying out research on the morbid anatomy of this organ and he described in great detail its cancerous changes. At the same time Klob recognised for the first time aberrant pancreatic tissue, which he found in various parts of the alimentary tract. Schmidt, in 1878, noticed the association between pancreatic disease and fat necrosis throughout the abdomen—an important diagnostic sign at laparotomy, and in 1883 Caparelli performed the first successful operation for the removal of calculi from the gland. Reginald Heber Fitz, in 1889, classified acute pancreatitis into hæmorrhagic, suppurative and gangrenous, and emphasised the associated fat necrosis to be found in this condition. One year later Pavloff, at the Russian school in Petrograd, was able to show by means of a special pancreatic fistula in his animals that the secretory fibres of the pancreas lay in the vagus nerve. Before the close of the century the first major operation had been carried out by Halstead who, in a case of carcinoma of the pancreas, resected the head of the gland and the second part of the duodenum.

During the first ten years of this century, spontaneous hyperinsulinism was recognised and attributed to adenoma of the pancreas, carcinoma of the islands of Langerhans was described and Moynihan was writing his famous treatise on the Surgery of the Pancreas, upon which modern methods of diagnosis and treatment are largely based. Then, in 1903, Mikulicz collected a number of cases of pancreatic disease following subcutaneous injury. But the major advance, from a physiological standpoint, came in 1922 with the isolation of " Insulin " by Banting and Best. The chief efforts of the 1930's were made in the diagnosis and operative procedure for carcinoma of the pancreas, while, in 1938, Dorothy Anderson first described that fibrocystic disease of the gland which occurs in children. Subsequently, Brunschwig, Cattell, Maingot, Pearse, Trimble and Whipple have led the field in the development of the surgical technique and pre- and post-operative treatment of that dreaded condition, carcinoma of the pancreas, which claims 1–2% of all patients suffering from malignant disease.

ANATOMICAL FEATURES

There is a most striking relationship between disease of the pancreas and that of the liver and biliary system, explicable on an embryological and anatomical basis.

The pancreas is developed in two parts. A ventral portion arises as a diverticulum of the primitive bile duct where this joins the duodenum. It eventually joins the head of the gland and its duct, that of Wirsung, takes over the main function of drainage. Meanwhile, the neck, body and tail are elaborated from a *dorsal* diverticulum of the duodenum which then joins the duct of Santorini, to disappear completely in some cases later in life.

In 89% of cases of pancreatic œdema, acute pancreatitis and pancreatic necrosis, Popper (1948) stated that there was a common biliary and pancreatic channel. Lewison (1940) has shown a history of biliary disease or evidence at operation in over 80% of cases of acute pancreatic disorder. This association is also well shown diagnostically in neoplasm. In cases of carcinoma of the head of the pancreas, nearly always the first clinical indication of any disease at all is jaundice, a feature often present, too, in many cases of acute or relapsing pancreatitis. Out of nine cases of acute pancreatitis admitted to Guy's Hospital between 1948 and 1951, six either presented with or had a history of

* *The Essay Prize of the Physical Society for* 1951 *was awarded jointly to Messrs. R. H. Farrell and J. L. Turk. This article represents a synthesis of their respective papers, as read to the Society on 7th December,* 1951.

biliary disease, and out of seven cases of chronic pancreatitis admitted over the same period there was a history of biliary disease in five instances.

Another factor to be noted is that the pancreas is a retroperitoneal abdominal organ and its disease can therefore be a possible cause of pain in the back. A common example of this is the development of pain in the back in a patient with a penetrating duodenal ulcer. The congenital condition of fibrocystic disease of the pancreas or muco-viscidosis can be dismissed as a medical problem only being of surgical significance in so far as it is the cause of meconium ileus of the new-born.

ACUTE PANCREATITIS

Diagnosis

Of all clinical emergencies acute pancreatitis is probably the one with the lowest incidence of correct diagnosis. Lewison (1941), in fact, quotes a figure as low as 13%. Of the nine cases admitted to Guy's Hospital between January 1948 and August 1951 the correct diagnosis was made pre-operatively in only two instances. The primary problem of recognition is thus evident.

The association of acute disease of the pancreas with biliary disease was emphasised by Opie in 1901 when he described cases of acute hæmorrhagic pancreatitis which, at autopsy, had an obstruction to the ampulla of Vater. Lewison, in his series, described a normal gall-bladder in only 20% of his cases, there being cholelithiasis in the other 80%, yet in only 3% was there ampullary obstruction by a bile stone.

The commonest form of acute pancreatic disease is that described as transient or *œdematous*, which occurred in 56% of the Guy's series. In this form fat necrosis of the omentum is rarely present and hæmorrhage into the gland is slight or absent. Other retroperitoneal tissues may be œdematous, but there is no free fluid in the peritoneal cavity. This state is rarely fatal, but may pass into a chronic fibrous condition.

Acute hæmorrhagic pancreatitis occurs when there is an interruption of the arterial blood supply. In the most severe cases the pancreas is seen as a large, dark, purplish, soft and friable mass, shining through the peritoneum of the lesser sac. Fat necrosis of the omentum is the rule. The peritoneal cavity may contain sanguinous or sero-sanguinous fluid, which is usually sterile, but may become infected and cause localised or generalised peritonitis. Gangrenous pancreatitis is generally regarded as a sequel to this process occurring in cases which have survived the initial stages.

Finally, there is the rare state of *suppurative pancreatitis*, which may take the form of multiple abscesses in the pancreas, a retroperitoneal abscess, or an abscess in the lesser sac secondary to infective endocarditis, cholecystitis, ulcerative colitis, appendicitis, as a result of a pyæmia, retrograde thrombosis or suppurative pyelophlebitis. (Acute pancreatitis may also be observed as a complication of typhoid fever, smallpox and mumps, but in these states suppuration and necrosis do not occur.)

The presenting symptom of acute pancreatitis is pain. This is generally described as gnawing or burning, but is only intense and unbearable in a third of cases. It is usually continuous, but if paroxysmal indicates the presence of a gall stone in the common bile duct or ampulla of Vater. The situation of the pain in the majority of cases is in the upper abdomen, usually starting in the epigastrium, radiating transversely and later becoming generalised. Vomiting, not preceded by nausea, is common and absence of bile in the vomit occurs in ampullary obstruction. Profound shock may be present and may be taken to indicate a severe degree of hæmorrhage and peritoneal exudation, for it is seen only in the acute hæmorrhagic form of the disease when there is peripheral vascular collapse from loss of blood and body fluids. The occurrence of jaundice in the acute stage was as high as 40% in the Guy's series. Abdominal movements may be limited and distension is a common feature. Abdominal rigidity and tenderness to palpation are very variable and the clinica picture may be overshadowed by an associated acute cholecystitis. An abdominal tumour is rarely felt until the third day. Pyrexia and a polymorphonuclear leucocytosis are the rule in all cases.

From this description it can be seen that the diagnosis of acute pancreatitis is not easy. The picture of peritonitis due to perforation of a peptic ulcer is closely mimicked by that of acute hæmorrhagic pancreatitis, the patient being severely shocked, complaining of severe generalised abdominal pain and presenting with complete abdominal rigidity. Acute pancreatic œdema can present with a picture of epigastric pain radiating into the chest in the mid-line which closely resembles that of coronary thrombosis. In Taylor's series the diagnosis of acute cholecystitis was made in 29·1%, perforated peptic ulcer in 14·5%, intestinal obstruction in 11·8%, acute appendicitis with peritonitis in 1·8% and coronary thrombosis in 0·9% of cases. In the Guy's series two of the nine cases were admitted with a diagnosis of coronary thrombosis, one of them remaining in the medical wards for three weeks before the pancreatic pathology was recognised by a surgeon on laparotomy after an attack of jaundice with rigors.

Of the clinical signs, local discolouration of the abdominal wall round the umbilicus (Cullen) and in the loins (Gray Turner) has been described but occurs only rarely and in those cases only in cases of acute hæmorrhagic pancreatitis of 2–3 days' standing. Lœwi's adrenaline test is of academic and antiquarian interest only.

Of the more modern chemical tests those of greatest use are the serum amylase and urinary diastase estimations. A rise in urinary diastase (normal 2–50 Wöhlgemuth units) occurs in 60% of cases of acute pancreatitis. For this estimation, however, a 24-hour specimen of urine is necessary. The rise in serum amylase (normal 70–200 Somogyi units) is of great significance. The highest figures are generally found 12 hours after the onset of the acute attack. Taylor (1949) found no rise in only 4·5% of his cases, and in the Guy's series no rise was found in only 2 out of the 8 cases in which it was estimated. Bodansky and Bodansky state that such deviation of the enzyme occurs also in mumps, of which acute pancreatitis is often a complication. Increased serum amylase levels have also been described in gastritis, gastric ulcer, duodenal ulcer and cholecystitis. Nevertheless, this factor, combined with the foregoing signs and symptoms, is of definite diagnostic value, but a normal serum amylase still fails to exclude pancreatitis.

Treatment

From the pathology of acute pancreatitis it is obvious that no good will be done by laparotomy, unless there is an obstruction to the biliary tract which can be relieved. Yet no surgeon, presented with a patient who gives all the appearances of having suffered a perforation of a peptic ulcer, would delay operative measures to wait for further signs. In such instances an estimation of the serum amylase, which can be performed by an experienced clinical pathologist in a very short space of time, can be invaluable.

The figures published of cases of acute pancreatitis treated conservatively show a decrease in the mortality rate. In the acute œdematous disease all that is necessary is bed rest and analgesics. Taylor does not recommend morphine, as it causes spasm of the sphincter of Oddi, but uses papaverine in combination with an antispasmodic such as atropine or ephedrine. In the conservative management of the acute hæmorrhagic condition peripheral vascular collapse must be treated as well, for shock from pancreatitis may be so profound as to prove fatal in a matter of hours. It is due, probably, to a depletion of body fluids and a disturbance in electrolyte balance arising from gross retroperitoneal hæmorrhage and intra-peritoneal exudation of fluid. Thus transfusion of whole blood is indicated and, if the patient is dehydrated, intravenous saline with 5% glucose may be added. By avoiding the oral route for 3 to 4 days, pancreatic activity tends to be inhibited. Thereafter, a light diet may be allowed, starting with milk and gradually increasing the solidity by easily assimilable carbohydrates, proteins being limited in the first place.

Operative treatment should be undertaken only for certain specific conditions: (1) persistent fever or development of fever along with other abdominal signs, (2) spreading peritonitis, (3) pancreatic necrosis, (4) distension of lesser sac, (5) enlargement of gall bladder, (6) jaundice, (7) no response to conservative treatment. In fact the principle should be to operate as little as possible. Surgical procedures recommended (Taylor, 1949) are—for distension and inflam-

mation of the gall bladder or jaundice, cholecystostomy and drainage of the gall bladder—for a stone in the ampulla of Vater, choledochostomy. If pancreatic suppuration or necrosis develops a drain should be put in the lesser sac to prevent the development of a pseudocyst—a well-known complication. On operation this is found to contain a large amount of greenish, turbulent fluid. Free fluid in the main peritoneal cavity may not be absorbed for 2–3 months, but this is of no disability unless it becomes infected.

The majority of laparotomies done in cases of acute pancreatitis are, however, diagnostic and in many cases of acute œdematous pancreatitis serve no purpose at all.

RECURRENT PANCREATITIS

In most cases recurrent or relapsing pancreatitis is probably a sequel to an attack of acute œdematous or acute hæmorrhagic pancreatitis and has the same age incidence. The first acute phase may be mild or unnoticed, or there may be continuity throughout. A large number of cases, however, present a sub-acute onset with upper abdominal pain, lasting for 48–72 hours, not related to food and sometimes radiating to the back. The pain may not even be so severe, the patient complaining merely of vague dyspeptic symptoms. In the past, this presentation has often been taken as psychoneurotic.

Pathological studies have shown that in those areas of necrosis and abscess formation involved in the acute condition, organisation takes place. Recurring attacks are each followed by resolution, scarring then leading to impairment of pancreatic function. Stenosis of the common bile duct may thus ensue, with chronic obstructive jaundice and eventually biliary cirrhosis. Complete destruction of pancreatic tissue has even been described, with steatorrhœa or diabetes mellitus, though this is rare. Calcification may also develop in areas of fat necrosis and calculi may be found in the ducts. (Comfort et al. 1946.) As in acute pancreatitis there is frequently an associated biliary pathology.

Doubilet and Mulholland (1948) describe an interesting series of 21 cases in which there was either a normal cholecystogram, or no gall bladder disease on operation—some had had their gall bladders removed previously. All had repeated attacks of abdominal pain associated with elevation of the serum amylase. At operation, a T-tube was inserted into the common bile duct. It was then shown by cholangiogram that on stimulation of the sphincter of Oddi by hydrochloric acid there was anatomical communication between the common bile duct and the pancreatic ducts. This possibly allowed for the entrance of irritating bile into the pancreas, a phenomenon which has been held responsible for the inflammation.

The surgical problem entailed in cases of relapsing pancreatitis is how to relieve the pain permanently. Treatment obviously depends on correct diagnosis. Where recurrent attacks of upper abdominal pain follow a recognised acute pancreatitic episode the explanation is clear. The pain is of sudden onset, severe, usually upper abdominal, may radiate to the back, quickly reaches a climax and lasts for 48–72 hours, varying in intensity. It is not related to food. Out of 5 cases of relapsing pancreatitis admitted to Guy's between January 1948 and August 1951, diagnosed either by X-ray or by biopsy, 3 had a history of nausea and vomiting during attacks. Jaundice may be present, though subclinical jaundice is more common. Examination may reveal guarding and tenderness of the upper abdomen. A help to diagnosis will be a history of previous biliary disease, of biliary colic or of a cholecystectomy. Recurrent pancreatitis often resembles recurrent cholecystitis with gall stones. Biliary investigations, however, are usually negative. Those investigations of use are the straight X-ray and serum amylase estimations. In one series, 15% of all diagnosed cases of recurrent pancreatitis showed calcification in the gland at X-ray. As many as 40% showed pancreatic lithiasis at laparotomy. In the same series there was a raised serum amylase in 15% of cases. In the Guy's series of 8 cases a raised serum amylase was found in only 2, these following within 6 months upon acute hæmorrhagic or acute œdematous episodes. Thus a low serum amylase does not exclude recurrent pancreatitis.

In the majority of cases diagnosis must be on the history and by exclusion of other disease. Since, in most cases, this is a severe condition characterised

by recurrent attacks of excruciating pain, treatment must be for relief of that pain. Doubilet (1948), on the basis of his findings quoted above, recommends a severance of the sphincter of Oddi, which in his series gave relief of symptoms for up to a year. Other operations of internal biliary drainage have had a similar measure of success. The efficacy of this manœuvre may be shown by one case in the Guy's series in which, at operation, a T-tube was inserted into the common bile duct with complete loss of symptoms. This was removed 3 months later, after which the pain soon returned. Reinsertion was then necessary. Pancreatectomy has also been recommended for relief of intractable pain of pancreatic fibrosis accompanied by lithiasis (Whipple 1946).

Recently splanchnic block with a local anæsthetic has been employed as a trial measure, followed then, if successful, by section of the splanchnic nerves. Two splanchnicectomies have been performed at Guy's recently in such circumstances. Immediate relief was obtained, but it is too early yet to judge the results. Bilateral thoraco-lumbar sympathectomy was performed in one series, with relief of pain up to 5 months only.

HYPERINSULINISM

It will be noted that few recognisable pathological conditions in the pancreas interfere seriously with carbohydrate metabolism, but over-activity on the part of the islet tissue associated with an adenomatous tumour gives rise to the syndrome of hyperinsulinism. This internal overdosage of insulin produces spontaneous hypoglycæmia, a condition which may have one of many causes—malignant disease of the islet tissue of the pancreas, hepatic disease, pituitary (anterior lobe) hypofunction, adrenal hypofunction, lesions of the central and autonomic nervous systems, and pregnancy and lactation. Its diagnosis may be made by consideration of Whipple's " Triad of Signs," which is attacks of insulin shock coming on during fasting or after excessive exercise, blood sugar findings of 50 mg.% or less and prompt relief of symptoms following the ingestion of glucose. All other conditions must be excluded before laparotomy in search of an adenoma is considered. Before the operation, the patient should be given 500 cc's. of 10% glucose solution intravenously and should be anæsthetised with ether which is reputed to raise the level of the blood sugar. A search should be made for accessory pancreatic tissue in the duodenum, stomach and gastro-splenic omentum before the whole of the pancreas is visualised. These tumours are usually found in the body or tail of the organ, but if none is found, at least two-thirds of the pancreas should be excised. Results of the operation are said to be most gratifying, producing marked improvement and, in the majority of cases, complete cure.

CARCINOMA OF THE PANCREAS

1–2% of all carcinomata diagnosed or found at post-mortem are situated in the pancreas. They may be primary growths—spheroidal-celled from the acini or columnar-celled from the ducts, or secondary growths, which are comparatively common since the gland forms part of the stomach-bed. At times it is very difficult to determine the site of origin. They are twice as common in the male as in the female and the peak age incidence is from 55 to 65 years. In 415 cases studied in 1937 Reeves, Romano and Sandifer found cancerous growth in the head of the gland in 66%, in the body and head in 18%, in the body alone 8% and in the tail 10%. The ratio of carcinoma of the ampullo-papillary region to that of the head is 5 to 8. Sarcoma is rare as a primary disease, is of the round or spindle-celled type, and is clinically indistinguishable from carcinoma.

The signs and symptoms of the disease, when the body or tail is involved, are similar to those of carcinoma of the body of the stomach ; anorexia, loss of weight, marked fatigue and pain—epigastric and dorsal, worse at night and unrelieved by morphine. It is interesting that in 1917 Moynihan, when describing this disease, said that pain is conspicuous by its absence, but this is not the modern view. Chemical tests and X-ray examinations are of little help, so laparotomy is usually necessary to establish the diagnosis.

When the carcinoma is in the head of the gland, the symptoms are similar. Pain is felt in the epigastrium or over the scapulæ in over 70% of cases and inevitably the patient becomes jaundiced. The jaundice appears insidiously,

but slowly progresses to a severe and permanent state, giving rise to maddening itching which is unresponsive to local treatment. In 90% of the cases the gall-bladder is tense and distended, thus abiding by Courvoisier's Law. The liver gradually enlarges and the gall-bladder may be found in the right iliac fossa. All the above signs and symptoms, together with bile in the urine and " putty-like " fæces, suggest the diagnosis, but tests of liver function must be carried out to exclude toxic, infective or cirrhotic disease of the liver, a barium meal must be given to exclude gastric carcinoma and to discover any shift to the right of the duodenum, and in mild cases only a cholecystogram should be carried out.

Remembering that the patient is jaundiced, anæmic, emaciated, dehydrated and toxic, appropriate pre-operative treatment is imperative. It is said that surgical treatment of malignant disease of the pancreas scarcely exists and that any procedure is purely palliative. At laparotomy, it is difficult to differentiate between malignancy and sclerosing pancreatitis. A biopsy must not be performed, for it is difficult to suture the wound and there is a high risk of disseminating cancer cells throughout the peritoneum. Assessment of the morbid anatomy must be made by inspection and palpation. Figures show that 7% of simple cases are diagnosed as malignant and 16% of malignant cases are classified as simple. In the obvious case, the head of the pancreas is hard and craggy.

If the tumour is both malignant and irremovable the principle of treatment is to drain away the bile from the gall-bladder or the duct by external drainage to the surface, or by internal drainage into the stomach, duodenum or the jejunum. In the case of drainage into the stomach, leakage is common owing to the contractions of that organ. The thick musculature and loose mucosa also make suturing difficult. The possible regurgitation of gastric contents into the bile passages may produce suppurative cholangitis and the mortality of this particular operation is about 50%. Cholecystoduodenostomy has a higher mortality, while cholecystojejunostomy a mortality of 20%–30%. This last is the operation of choice. The mortality of palliative operations for cancer of the pancreas averages 40%–50% and in one year all are dead. In chronic pancreatitis so treated the mortality is 20%. Death is caused by peritonitis, hæmorrhage, chest complications, shock and cholæmia. A note should be made of Moynihan's remark that " No one living is infallible in the differential diagnosis of obstructive jaundice. The diagnosis is always so difficult, the chance of a saved life so important, that however positive the evidence of malignancy might be, I now advise operation in all cases. The mortality of cholecystoenterostomy is trifling if we take into account the severity of the disease and the outlook, and relief from the maddening torture of itching is worth every sacrifice."

Billroth, in 1884, performed total excision of the pancreas with recovery of the patient and Halstead, in 1899, resected a segment of the second part of the duodenum and part of the head of the pancreas for carcinoma. This is the elective operation for carcinoma of the ampullary region and in the head of the gland. Between 1912 and 1935 only three successful operations of this type were carried out. Brunschwig, between 1937 and 1942, was the first to perform extensive radical pancreatico-duodenectomy for carcinoma of the head, and since then some 150 such operations have been carried out in various parts of the world.

The technique used has changed little during the past forty years. The approach to the pancreas can be made from in front or behind. In the former case the organ is displayed in a variety of ways. In thin people with visceroptosis an approach through the gastro-hepatic omentum is preferable. When strong adhesions prevent the mobilisation of a large cyst, the anterior and posterior walls of the stomach may be cut through in order to visualise it. The transverse colon may be turned up, as in gastro-enterostomy, and an approach made by incising the transverse mesocolon. The most popular approach is through the gastro-colic omentum, immediately below the greater curve of the stomach, into the lesser sac of peritoneum. An incision through the posterior wall of the lesser sac then reveals the pancreas. The posterior

part of the head of the organ may be visualised by incising the peritoneum to the right of the duodenum and stripping the second part of the intestine upwards towards the midline. Peter's retroperitoneal approach from the left loin is now unpopular.

There are special dangers associated with operations on the gland and the first of these is hæmorrhage. The organ is extremely vascular and fragile, with large and numerous blood vessels which are difficult to find and ligate. The thick sutures which must be employed damage the gland and may give rise to sloughing. The second danger is that of the escape of pancreatic juice. After injury or operation, ferments are secreted from the wound-surfaces producing fat necrosis and digestion of the organs involved. A good culture medium is thus provided for any contaminating organisms and the prevention of some infection is difficult during long and tedious surgical procedures. The peritoneum is no longer in any condition to resist bacterial invasion, it becomes inflamed and adhesions are formed. These too are digested in turn. Under such circumstances, free and adequate drainage and careful closure of the peritoneum over the wound are essential.

The middle colic artery, the superior mesenteric artery and the portal vein are in special danger during an operation on the pancreas because of their close relations to the gland, whilst in many cases the splenic vessels are so closely adherent to the upper border that separation is impossible. It then becomes necessary to do a splenectomy. The blood and lymph supply of the duodenum and the pancreas are shared, so when the head and body of the latter are to be removed, the duodenum must be resected too. After pancreatectomy, the alkaline secretion of the gland will be lacking and partial gastrectomy will be required to reduce the acidity of the stomach contents which will pass into the intestine. After this, drainage from the stomach and the bile duct must be made into the jejunum. If possible, a small part of the gland should be left *in situ* in every case, as this will be sufficient to prevent the patient from becoming diabetic. The temptation to do a biopsy on the gland should be strongly resisted, for the ducts are easily injured and once the secretion is released, peritonitis, pancreatitis, cyst-formations, and the release of cancer cells are easily brought about. (When peptic ulcers deeply penetrate the gland substance with surrounding fibrosis it is safer to leave the ulcer base in the pancreas than to attempt excision.)

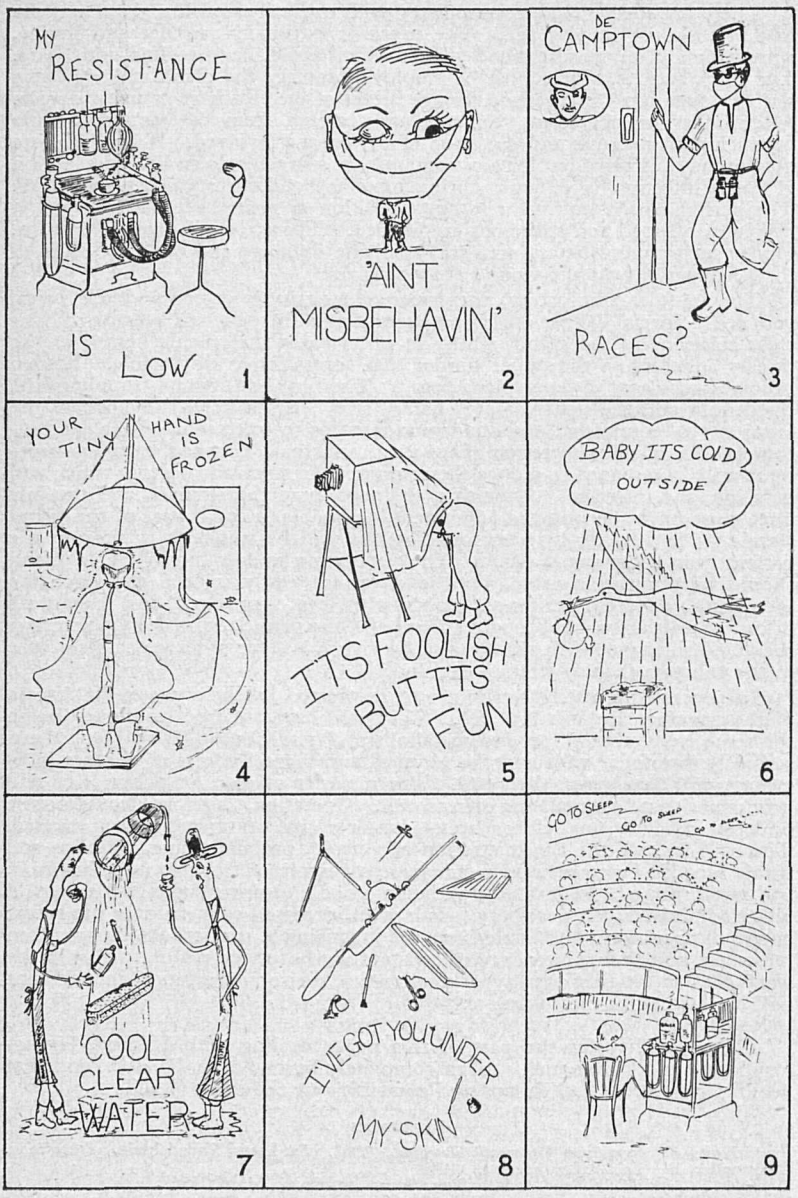
In general, the patients who are to be treated by the surgeon for disease of the pancreas are at a low ebb. They will have suffered insidious disease for some time, absorption and metabolism of vital foodstuffs will have been seriously interfered with and the physical and mental effects of chronic indigestion will have taken their toll. The majority of cases of pancreatitis will have experienced excruciating pain as well. Operation, therefore, should not be undertaken lightly, nor before adequate pre-operative treatment has been ensured. This will include the administration of glucose, protein, saline, vitamins and whole blood. Post-operatively, adequate cover with antibiotics must be given, and watch must be kept on the patient's blood and urine sugar levels, insulin being administered if necessary. It is with increased concern over the actual choice of operation to be carried out, the practising of surgical abstinence when indicated, and the maintenance of constant vigil over the patient whilst in the ward that the high mortality of pancreatic disease and surgical interference will be lowered in the future.

Responsibility for the part of this paper dealing with History, Hyperinsulinism and Carcinoma is taken completely by one of us (R.H.F.) and that dealing with Acute and Relapsing Pancreatitis by the other (J.L.T.).

REFERENCES

Brunschwig, A. *Surgery of Pancreatic Tumours.* 1942. St. Louis, Philadelphia. *5th edition.*
Christopher, F. *Textbook of Surgery.* 1949.
Doubilet, H., and Mulholland, J. H. *Surg. Gynec. and Obst.* March, 1948.
Horton, R. E. *Guy's Hosp. Rep.* 1947. **96**, 226.
Lewison, E. F. *J. Lab. Clin. Med.*, **26**, 1901.
Maingot, R. *Lancet.* December, 1941.
Miculicz, P. *Ann. Surg.* 1903. **38**, 1.
Moynihan, B. *Abdominal Operations.* 1914. *3rd edition.* Philadelphia.
Opie, E. L. *Johns Hopkins Hospital Bulletin.* 1901.
Taylor, R. A. R. *Annals Roy. Coll. Surg. Eng.* October, 1941.
Whipple, A. O. *J. Mt. Sinai Hospital.* Sept., 1948.

Surgical



The above drawings, which at Christmas adorned the appropriate lockers in the Surgeon's Room attached to Main Theatres, are

Selections

Drawings by J. Everitt and V. Moss

reproduced here for readers' delight and recognition. A key to the identities is to be found on page 64.

Accident Proneness

By RONALD MAC KEITH

(Reprinted by kind permission of the Editor of NEW BIOLOGY.)

THE idea or hypothesis of accident proneness may turn out to be as important for saving lives as sulphonamides and the antibiotics like penicillin have been. The last seventy-five years have seen the discovery of the importance of bacteria in producing disease and have also seen a great fall in the number of deaths from illness they cause. The reasons for the fall are not entirely clear, but improved sanitation, better food, general preventive measures such as antisepsis and asepsis, and specific measures such as inoculation against diphtheria have contributed, and the last fifteen years have seen sulphonamides and antibiotics joining in the fight. The outcome is that disorders like cancer and heart failure become relatively more common as causes of death. Among children of 5 to 15, where death is perhaps more regrettable, the biggest cause of death today is what the Registrar General calls " violence " and the laymen call " accidents ".

There are 1,000 fatal and 350,000 other accidents a year in factories ; 5,000 deaths from accidents in the home, and 3,000 deaths and 250,000 injuries on the roads. This can be looked at from various aspects. The medical care is expensive—and nowadays we have all to pay towards its cost. It is wasteful of labour that might be productive. It is the cause of suffering to those bereaved, to the surviving injured and perhaps especially to those who are mutilated and scarred. That we tolerate such a high accident rate is interesting, for it should mean that we believe that the benefits of having buses, motor cars and lorries are worth more than are several thousand lives and a quarter of a million injuries a year. " Safety is a grace accruing to a really decent civilization ". Would it be possible to be more civilized, at least by reducing the accidents in factories, in homes and on the roads ?

In 1919 Greenwood and Woods working for the Industrial Fatigue Research Board observed that in a group of workers studied over a period, accidents did not occur uniformly throughout the group, but that some of the workers had repeated accidents, so that 80 per cent. of the accidents happened to 20 per cent. of the workers. This ratio has been confirmed by a number of studies of industrial accidents and of road accidents. Such an uneven distribution *might* arise from a simple chance distribution, but that is not an adequate explanation of the repeated observations. It might be because having one accident makes a person liable to suffer further accidents or it might be because individuals differ in their liability to accident, even with the same degree of risk.

Let us consider children. The peak age for road accidents in children is 4 to 6 years ; children of this age group have special characteristics, physical, mental, and emotional, and these may be responsible for the high accident rate. They are active, progressing usually by running rather than walking, and just acquiring the grace in movement which implies full control. They may see a motor car 30 yards away and not appreciate that it is moving rapidly towards them. They believe that grown-ups are all-powerful and so they may well believe the car could be stopped if necessary. These small children are impulsive and act suddenly and may be moved to action by fantasies or strongly felt emotions. In brief, their high accident rate may be from their relative physical, intellectual or emotional defects compared with the children of 7 — 9 who have fewer accidents.

The same possibilities arise when accident-prone adults are studied. An American insurance company's analysis of a series of industrial accidents suggested that :

mechanical hazards caused less than 9 per cent.,
physical and mental defects— about 3 per cent.,
lack of skill— less than 8 per cent.,

leaving personality defects to account for 80 per cent. of the accidents. The idea of accident proneness of psychological origin was first put forward by Farmer and Chambers in a Medical Research Council report published in 1926, and also by Marbe in the same year. Attempts were made to correlate accident proneness with the " reaction time ". (" Reaction time " is the time between receiving a stimulus and acting upon this perception. For example, the subject may sit with his finger on a key in an electrical circuit, with instructions to press the key when he hears a bell. In practice we measure the time between the sounding of the bell and the effect of the electric circuit being completed. The time taken for the sound of the bell to travel to the subject's ears and for his pressure on the key to produce a recorded effect are brief compared with the time between his receipt of the stimulus and the completion of the movement he performs in response to perceiving it.) There is little correlation, and though there is a higher correlation with elaborate tests demanding a close co-ordination of stimulus and action, it was not high enough to justify selection of workers on such tests. In dealing with motor drivers they found (Farmer and Chambers, 1939) that failure to do certain psychological tests was reflected in a higher accident rate. They also found that the liability to accident is a stable characteristic. Bus drivers with a high number of accidents in their first year of work tended to go on having an excess. Inexperience in itself does give a rather increased rate of accidents, but, though " veteran " motorists may be surprised at this, after the first year, further experience does not reduce the accident rate. These authors suggested that by taking the results of certain tests and the reports of the accident incidence in the first years of driving, some accident-prone drivers could be detected and perhaps diverted to other occupations.

Certain illnesses, gastric ulcer for example, have been thought to be commonly associated with a particular temperament. The usual steps taken to support such a hypothesis are—

(i) to show that this temperament is common in gastric ulcer patients, and

(ii) to show that in a " control group " representing a random fair sample of the population, this temperament is uncommon.

On three occasions, research workers took as their " control group " patients admitted to hospital with fractured bones, on the assumption that accidents were the result of simple chance. On each occasion, the group of fracture patients was found to include a large number with a particular personality. One American, Dr. Flanders Dunbar (1943b), made a special study of accident-prone-patients, and her work showed—

(*a*) Most (80 per cent.) of those who have had one serious accident tend to have others, and have a particular personality. The other 20 per cent. do not tend to have more accidents and do *not* have special personality features.

(*b*) People with a history of minor accidents are more likely to have a serious accident. If a group of fracture patients is compared with a group of patients with heart disease, 76 per cent. of the total illness period in their *previous* medical history was the result of accidents for the fracture patients, and 2 per cent. for the heart patients.

(*c*) Accident-prone persons have unusually good health records ; they have not been off work much and are especially free of colds and indigestion.

(*d*) They are not clumsy or dull ; they are quick-minded " men of action not deliberation " but inarticulate about expressing their feelings.

(*e*) There are various types of accident-prone persons. The most usual type is happy-go-lucky, impulsive casual people, " who divorce and remarry easily " (which is the accident is not stated in the report). From the psychological point of view they are hostile to authority but evade this feeling. That is, they are not openly hostile to parents, employers, etc., but take up fatalistic " don't care " attitudes towards others.

Accident-prone children have pent-up aggression and resentment shown by restlessness, stealing, lying or truancy. Fabian and Bender (1947) studying children of 1—15 years old with severe head injuries, found that 38 per cent.

of them had had previous major accidents. 83 per cent. of the children had inadequate parents—sometimes heavy drinkers, sometimes a domineering abusive father and an overprotective mother. These children are like delinquents, but where one breaks laws, the other breaks bones. The guilty feelings of some of the fracture patients was revealed by remarks such as " It serves me right ". Accidents appear to happen when children are doing forbidden things ; and it is suggested that some children may be reckless in order to bring punishment upon themselves because they cannot bear the feelings they have of guilt. Such guilty feelings are common in children developing a " conscience " and are normal, but children living in ordinary loving homes can cope with them. An insecure child whose parents' attitudes and behaviour have planted doubt in his mind as to whether he is wanted may be driven to behave in a " naughty " way. He may have an urge to provoke grown-ups to test their love. Children at times resent their dependence and may want to defy their parents. The powerful motor car may represent the small child's all-powerful father. If a child has an impulse to defy a car, which for the moment represents his father, what will happen ? And if after the wicked impulse, the child feels remorse and wishes to throw himself at the mercy of the thing defied, or to be punished by it, what then ? Such reactions may seem essentially neurotic reactions, but the line between " neurotic " children and " normal " children at certain times would be difficult to draw. Primitive man knows no such thing as accident and the small child does not easily accept that the injuries he suffers are accidental " until he has used this concept to excuse his own guilt in the injury of others " (Ackerman and Chidester, 1936). A seven-year-old child was asked, " What ought you to do if another girl hits you by accident ? " Her reply was, " Hit her back by accident." (Balint, 1949.)

Data about accidents in the home are difficult to get. One study (*Lancet*, 1948) suggested that two-thirds of these are due to carelessness of one sort or another. Certainly there are far too many unguarded electric heaters in our homes and worse still, on sale in shops, and inflammable stuffs should be avoided for children's clothes. Accidents do happen to the tired and irritable, so that personal rather than structural factors are the main cause of accidents in the home. " But it is clear that there are most injuries where housewives live in overcrowded and ill-equipped homes ; they are distracted by the difficulties of keeping an eye on the children while trying to get through the day's work without confusion and disorder. A long story of fighting against the heavy odds of environment often lies behind expressions such as thoughtlessness, carelessness or negligence " (*Lancet*, 1951). It is only a person who is a witness of an accident and what preceded the event who has any chance of recognising the causes in a complex of contributory factors. Those with a knowledge of Freud's theory of every-day mistakes may recognise such motivations. Flippant tea-table gossip about an absent host's popularity with the ladies was interrupted by his wife's knocking over the hot water jug and being scalded. " A genuine accident, but what an effective way of attracting sympathy " (*Lancet*, 1949). It may be difficult afterwards to discover such a cause, but a knowledge of the person and the emotional stresses in her environment might lead one to look for it.

Accident proneness certainly exists in some people. It is not the only factor in the causation of accidents. We must continue to shield dangerous machines in factories ; we must try to improve our roads, and make our homes safer. We must help children to learn safe behaviour. Does the idea of accident proneness offer us any further ways in which accidents might be reduced ?

A transport company transferred their drivers who had most accidents to other jobs and so reduced accidents to one-fifth of what they had been (Rawson, 1944). (The ex-drivers still suffered injuries, but only to themselves.) Most of the fatal road accidents in Great Britain involve public service vehicles such as buses and lorries, and so it should be possible to know the incidence of accidents, to recognise the accident-prone drivers and persuade them to change to other jobs. This is a field in which trade unions and employers should co-operate, for it may be difficult to work out how such a scheme is to be administered. We need to find out more about the tests devised for reaction time and the psychological tests which might be used. This would cost

money, but not much in comparison with the immense sums proposed for road improvements " to make roads safer ". It is unlikely that such expensive schemes will be possible for a long time and " however much external conditions were improved, with a view to reducing the general accident rate, those specially prone would still have a higher rate under all conditions than those with a relatively low accident proneness " (Farmer and Chambers, 1939). If legislation is to be introduced involving limitations on the liberty of the subject, we can be sure that the case for such limitations will have to be very strong before it is acceptable to Parliament.

These would be measures to deal with a situation that has arisen and has been discovered. On a longer-term policy we should like to see that this rather abnormal reaction to authority shown by the accident-prone does not arise. We should think of a child who has repeated accidents as having a behaviour problem which needs treatment and we should do what we can to help mend the environment in which the accident-prone personality develops.

References and Further Reading

Ackerman, N. W., and Chidester, L. (1936), " Accidental " self-injury in children. *Arch. Ped.*, **53**, 711.
Alexander, F. (1949), *U.S. Publ. Health Reports*, **64**, 357.
Bakwin, R. M., and Bakwin, H. (1948), " Accident Proneness ", *J. Pediat.*, **32**, 749.
Balint, E. M. (1949), Address given at National Safety Congress, London.
Culpin, M. (1934), *Lancet*, **1**, 1739.
Dunbar, F. (1943a), *War Medicine*, **4**, 1.
Idem (1943b), *Psychosomatic Diagnosis*, New York.
Idem (1947), *Mind and Body*, New York.
Fabian, A. A., and Bender, L. (1947), " Head Injury in Children : Predisposing Factors ", *Amer. J. Orthopsych.*, **17**, 68.
Farmer, E., and Chambers, E. G. (1926), " A Psychological Study of Individual Differences in Accident Rates ", *M.R.C., I.H.R.B.*, Report No. 38, H.M.S.O.
Farmer, E., and Chambers, E. G. (1939), " A Study of Accident Proneness Among Motor Drivers ", *M.R.C., I.H.R.B.*, Report No. 84, H.M.S.O.
Gleason, M. N. (1948), " The Accident-Prone Patient ", *New York State J. Med.*, **48**, ii, 2168.
Greenwood, M., and Woods, H. M. (1919), " The Incidence of Industrial Accidents, with Special Reference to Multiple Accidents ", *M.R.C., I.F.R.B.*, Report No. 4, H.M.S.O.
Isaacs, S. (1938), " Child Psychology and the Accident Problem ", *R.S.P.A. Congress Report.*
King, B. G. (1949), " Accident Prevention Research ", *U.S. Publ. Health Reports*, **64**, 373.
Lancet (1948), " Injury in the Home ", *Lancet*, **1**, 758.
Idem (1949), " The Problem of Home Accidents ", *Lancet*, **1**, 620.
Idem (1951), " Danger in the Home ", *Lancet*, **1**, 97.
Marbe, K. (1926), *Praktische Psychologie der Unfalle and Betriebsschaden*, Munich.
Rawson, A. J. (1944), " Accident Proneness ", *Psychosom. Med.*, **6**, 88.
Soddy, K. (1947), " Psychological Aspects of Child Road Accidents ", *R.S.P.A. Congress Report.*

Guy's Physical Society

ANNUAL ADDRESS

The Physical Society met on January 24th under the presidency of Mr. C. P. Brook and Mr. A. P. O. Stewart to hear the Annual Address which was given by Mr. T. B. Layton. The audience of over a hundred included many who were hearing Mr. Layton's voice for the first time, and it was good for them and for the traditions of the Hospital that they should hear a man whose memory of the Annual Address goes back to Sir Samuel Wilks and Sir James Goodhart. The Address, on the subject of the Erect Position in Clinical Medicine was characteristically provocative and revealed that Mr. Layton's vitality of mind and body is undimmed by the years that have passed since he retired from the staff.

VISIT TO GLAXO LABORATORIES

On Wednesday, February 13th, a party of members under the presidency of Mr. C. Bishop and Mr. M. K. Strelling will visit Glaxo Laboratories. It is hoped to see something of the research carried out by the company as well as of the large scale production of drugs and the analytical control of antibiotics. Members of the Society will be the guests of the company who have kindly arranged for a coach to leave the main gate of Guy's at 1.35 p.m. The party must be limited to 24 so that early application is advisable to Mr. Bishop and Mr. Strelling.

Correspondence

" When Man Bites Dog "

SIR,—You ask, " What is wrong with the patient ? " Malignant testicular tumour or a reticulosarcoma are two possible diagnoses ; both would fit the clinical history as you give it. Evidently your journalism is as picturesque as that you are criticising. You have extracted those parts of the report which suit your purpose, as presumably had the other journalist. The only statement that can be honestly criticised is about the surgeon demonstrating the patient as having a two-week prognosis. But the best of us are wrong sometimes, and there have been comments even in Passim about which end of the stick patients get hold of. I feel that such cynicism as is shown in this " annotation " should be reserved for occasions when the journalist shows a complete disregard for medical possibilities—and it might be as well to use the recognised international code of references in such articles as this, anonymous though they be.

Yours, etc.,

St. Bartholomew's Hospital,
London, E.C.1.

D. E. MEREDITH BROWN.

Musical Appreciation

SIR,—In the most recent issue of the *Gazette* (15th December, 1951) which has reached me here, I am delighted to read that your correspondent "A" (and others) has noticed at least something during the last six years. Amongst other things, however, he has failed to notice the resources available to the Music Club for past concerts.

He assumes that the primary object of such a body of amateur musicians as the Music Club is the entertainment of their audience. Few who have taken an active part in past concerts would dare to suggest such a conceit, especially in London where it is always possible to hear professional performances of music by the widest range of composers. They would insist that they have met chiefly to make music, and if, while enjoying themselves, they have given some pleasure to others, they will have been well satisfied.

Superficially this opinion may sound selfish, but not half so selfish as that of your correspondent who has considered only the audience. The choir is faced with learning a work in a few rehearsals, and its size requires music written in not more than four parts. The conductor in turn is confronted by a choir which of necessity has a shifting population, and often cannot assemble complete until the concert itself. The limited number of instrumentalists in the Hospital, even augmented by the many friends from outside, can never muster enough in numbers to constitute more than a small chamber orchestra ; this automatically excludes the choice of any work scored for a modern or even a Nineteenth Century orchestra. To attempt a complex score after the one hectic three-hour rehearsal would be sheer folly. How often, too, has music been out of print, or not available in libraries, when otherwise it might have been entirely suitable.

The charge that all works by other than Eighteenth Century composers are becoming rigidly excluded, is refuted. Seventeenth Century " Dido and Æneas " was followed by the lesser known Masque in " Dioclesian ", vintage Purcell ; at Christmas time one can remember seasonal Vaughan Williams and Bush ; and Brahms has been represented, and Fauré by the " Requiem ", albeit with an orchestra deficient in three trombones, clarinets playing 3rd and 4th horn parts, and with the Chapel piano substituting for want of a harp. Are these evidence of an " unpleasant form of musical snobbishness ", and are Bach Cantatas and Mozart Piano Concertoes the hallmark of a " remote culture " ? Was " Gelobet sei der Herr " of which only one set of parts exists in London, and these generously lent by the B.B.C., considered " safe for the patient audience " ?

I can assure you, Mr. Editor, that should "A" throw off his mask and come forward with two brass bands enabling him to stage a satisfactory performance of " Belshazzar's Feast ", he will become, at least in the eyes of one of your correspondents, a new " Forces' Favourite ".

Yours, etc.,

Headquarters,
1st Infantry Division,
M.E.L.F. (10).

A. J. SALMON,

" Psychosomatic "

SIR,—I read your last issue with great interest ; and I was just sinking into an uneasy slumber, musing on the causes of disease, when I was startled by the sound of the following song.

So clear and assured was the statement, and so frequent the references and involved the statistics which followed (but I will not bore you with these), that I had no doubt that this was no ordinary auditory hallucination, but a personal communication from the author of disease himself.

I have therefore made an appropriate acknowledgment in the text.

Yours, etc.,

42, Trinity Church Square,
S.E.1.

PATRICK MONTGOMERY.

" A PSOME FOR A PSYCHE "

(*To the tune of " Here's to the Maiden "*)

Heart, body, and soul—so strange a compound
To you whom they're strangely compound in—
Material scientists clearly expound
And these are the words they expound in :
Your heart is the organ which pumps the blood round,
Your body is what it goes round in,
Your soul is the organ that hasn't been found
And your what it hasn't been found in.

Then doctors discovered the Psyche (or soul)—
A cognitive instinctivoma—
Which keeps, to secure it's volitional goal,
A case called the body (or soma).
The heart's still a pump, but if beats are erratic
Conation or affect impelled 'em,
And disease is so frequently psychosomatic
And somatopsychic so seldom.

But nowadays, commonsense teaching agrees,
You're a physico-psychical buffer,
And when, as a patient, you have a disease,
Soul and body reciprocally suffer.
And even when psychic and physical signs
Are diagrammatically level,
Their cause may be common (on commonsense lines),
And you know, in your heart, it's the Devil.

—*Diabolus Morbifer.*

Reviews

Cooking for the Sick and Convalescent. By NELL HEATON and V. H. MOTTRAM. London: Faber & Faber. *Price* 27*s.* 6*d.*

Here the authors set out to show that although there are many conditions for which special feeding is recommended, the diet can be far removed from the dreary monotony of the three M's (milk, mince and mash).

Professor Mottram, an expert on nutrition, devotes the first half of this book to a concise but accurate account of the principles of modern dietary treatment and, in spite of medical phraseology, provides fare which both stimulates and entertains.

Nell Heaton's recipes which follow show how brighter and more imaginative invalid meals can be prepared. Perhaps the authors are optimistic in assuming that recipes of the "Original Beeton" variety, calling for cream, eggs and butter, will soon be within the scope of the average household, but there are many other more modest recipes and suggestions which give practical help to those who cater for the sick. P.M.N.

Plastic Surgery. By C. R. MCLAUGHLIN. Faber and Faber. *Price* 12*s.* 6*d.*

This book will be appreciated by all nurses who are unfamiliar with both the nursing and the operating technique of this special branch of surgery.

It is instructive and helpful, and the most up-to-date methods of treatments and operations are discussed with useful instructions from the nurses' point of view.

The many clear and simple diagrams make this book most interesting and easy to understand. B.P.

Treatment by Manipulation. By H. JACKSON BURROWS and W. D. COLTART. "The Practitioner". *Price* 12*s.* 6*d.*

The indications, pitfalls and technique of treatment of various lesions by manipulation are clearly described in the second edition of this book. This form of procedure is not advocated as a "cure all". The text is admirable and excellently illustrated, its brevity sets a commendable example for more long-winded authors. J.A.

A Synopsis of Ophthalmology. By J. L. C. MARTIN-DOYLE. John Wright & Sons. *Price* 20*s.*

The author's approach to the subject is intensely human. Not to lose this aspect even in a synopsis is creditable. Common conditions are rightly given relatively more space. It also mentions rarer diseases and syndromes, latest and highly specialised methods of examinations, therapeutics, running down to A.C.T.H. and Cortisone, and yet embryonic things like intra-ocular lens implant.

The book claims to cater to the needs of (1) undergraduates, (2) the G.P., and (3) Diploma in Ophthalmology candidates, when revising for examinations. One cannot help feeling that the book suffers from not being addressed to one group. It is not strong enough for the D.O. candidates and at the same time not practical and simple enough to be useful to the undergraduates and G.P.

ALSO RECEIVED

The Rational Treatment of Catarrh. W. ANNANDALE TROUP. Chaterson. *Price* 10*s.* 6*d.*

The Biochemical Approach to Biological Organization. PROFESSOR E. BALDWIN. H. K. Lewis. *Price* 3*s.* 6*d.*

Chance Design in Physiological Research. PROFESSOR G. L. BROWN. H. K. Lewis. *Price* 3*s.* 0*d.*

International Dental Journal, Vol. 1, No. 4. Cassell.

Biology Staining Schedules. By R. R. FOWELL. H. K. Lewis. *Price* 2*s.* 6*d.*

New Plombage Materials in Surgical Collapse Therapy of Pulmonary Tuberculosis. By E. HART HANSEN and ERICK VON ROSEN. Ejnar Munksgaard, Copenhagen.

Tuberculosis in Iceland. Sigurdur Sigurdsson.

A Doctor Regrets. By DONALD MCI. JOHNSON. Christopher Johnson. *Price* 12*s.* 6*d.*

ACADEMIC

February		
		Exhibition. Surgical Department. "Pott's Disease."
11th	1.00.	Mr. Blaikley. Clinical Lecture. "The Staphylococcus and the Obstetrician."
12th	12.00.	Professor W. E. Herbert. Dental Clinical Lecture. "Traumatic Injuries of the Teeth." Dental Theatre.
	1.00.	Professor Spurrell. Clinical Lecture. "Precision."
14th	5.00.	X-Ray Meeting. Gordon Museum.
15th	1.00.	Dr. Mann. Clinical Lecture. "Malaria."
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
18th	1.00.	Mr. Law. Clinical Lecture. "Strabismus."
20th	4.45.	Science Club. Mr. Murray Falconer. "Painful Phantom Limbs." Staff Common Room. (Tea 4.30.)
21st	5.00.	X-Ray Meeting. Gordon Museum.
22nd	1.00.	Dr. Hampson. Clinical Lecture.
	2.15.	Medical Department. Combined Round. Preclinical Classroom.
23rd	10.00.	Surgical Department. Clinico-Pathological Meeting. Clinical Theatre.
25th	1.00.	Mr. Atkins. Clinical Lecture. "Instruments You Should Know."
	4.45.	Dept. of Child Health. Film Show. Anatomy Theatre. "Your Children's Play." "Problem Children."
March		
1st	10.00—4.00.	Annual Dental Clinical Meeting.

SPORT

February	
13th	Rugby "A" XV *v.* St. John's College. (Cambridge.)
16th	Rugby 1st XV *v.* Aberavon. (Aberavon.)
	Rugby "A" XV *v.* Stoneygate. (H.O.P.)
	Rugby Extra "A" XV *v.* Richmond Extra "A". (Motspur Park.)
	Rugby Wanderers *v.* Gravesend "A". (H.O.P.)
	Rugby "B" XV *v.* Vickers Armstrong "A". (Weybridge).
22nd	University of London Boxing Club *v.* Royal Air Force Officers. (Away.)
23rd	Boxing. University Athletic Union Championships. (Sheffield.)
	Rugby 1st XV *v.* Metropolitan Police. (H.O.P.)
	Rugby "A" XV *v.* Metropolitan Police "A". (H.O.P.)
	Rugby Extra "A" XV *v.* Lyons. (Sudbury Hill.)
	Rugby Wanderers *v.* Thames Board Mills. (Away.)
	Rugby "B" XV *v.* London Transport "A". (Osterley.)

Sport and Hospital Information, etc.

HOCKEY

Inter-Hospitals' Cup—2nd Round

Guy's *v.* London Hospital

At Hale End. Result—Won 3—1

30th January, 1952

Guy's qualified for the semi-final of the Cup with a good victory over London Hospital on their ground. Once again we played on a frozen pitch, tending to thaw, which rendered the surface distinctly hazardous—a factor to be coped with in addition to our opponents.

The game was played in sunshine and was fast and open. Both stick-work and manœuvrability were necessarily limited and passes had to be accurately placed "on the stick" in order to gain advantage, and in this respect we were rather slow to adapt ourselves to the conditions. The start was, therefore, in several senses, somewhat shaky, with both teams negotiating for foothold; but soon the play was swinging quickly from end to end—sometimes uncontrollably—and from one of several centres from the left Cox lunged aptly to open the scoring.

London fought back, and from a good attack broke through to equalise, and at half-time the score was 1–1.

From the beginning of the second half Guy's rapidly gained superiority with constructive passing from wing-half to opposite inside forward splitting the London defence and repeatedly putting our forwards into near-scoring positions. Following such a movement, Millar scored with a fast shot after neat approach work with the other forwards. Subsequently, Guy's goal was never really menaced, though several attempts were well repulsed. The Guy's pressure was maintained on London's goal, and from the award of a penalty corner Millar again firmly drove the ball into the net.

Outstanding features of the game included the confident steadiness of the backs, the fine covering and attacking play of Vans Agnew at half, and the positional play of Millar, who manœuvred the play into the opposing circle with great effect.

Team: C. Bishop; R. Park, N. Parker; C. F. M. Robinson, D. Linahan, W. Vans Agnew; D. V. Duckworth, I. J. Millar, D. E. Blake, J. J. Hall, M. N. Cox.

APPOINTMENTS VACANT

App'ications are invited for the appointment of **Registrar, 1st year, to the Ear, Nose and Throat Department** with duties at Guy's, Orpington and St. Olave's Hospitals. Duties to commence on 10th March, 1952, Forms of application, obtainable from the Superintendent, Guy's Hospital, should be forwarded with the names of two referees not later than **20th February, 1952.**

PASS LIST

CONJOINT BOARD

M.R.C.S., L.R.C.P.

Final Examination
January, 1952

Pathology

M. H. H. Bishop	E. M. James
E. W. G. Birch	H. St. J. Mansbridge
June E. Brett	*Joan M. Newton
*W. A. J. Bufton	G. L. S. Rankin
W. F. Dummer	H. S. Reeve
F. C. Emberton	E. C. Spencer
*A. Fairley	C. H. W. Warne

Medicine

*R. K. Allday	E. R. Herst
*F. J. A. Bateman	*P. N. A. Holden
*L. H. Brearley	*B. G. Jackson
R. W. Brotherwood	*P. E. Kapff
*C. V. Bullen	*G. A. Marin
*F. D'U. Burgess	W. A. Matheson
J. Dennis	*Eleanor Morrison
H. P. Duke	*E. A. Murray
W. F. Dummer	*D. W. L. Phillips
P. S. Elias	J. E. Rees
L. L. Emery	H. S. Reeve
*J. R. Evans	*D. S. Robinson
D. J. Green	G. B. Skinner
E. G. Haydon	*E. D. Sonnenfeld
W. D. Hayley	Ruth I. Wiernick

Surgery

*A. Abdool-Raman	*G. A. Kerr
V. Ainsworth	*A. V. Large
*F. J. A. Bateman	*W. G. Lewis
*L. H. Brearley	*D. A. F. McGill
*T. K. H. Burnham	*E. A. Murray
*L. G. Couch	*Joan M. Newton
J. Eastwood	C. H. Opie
J. Ernsting	*H. Schapira
Elizabeth Fincham	*F. C. Shelley
E. R. Herst	A. J. Smith
*Josephine C. M. Heylen	Joyce D. Waye
*P. N. A. Holden	*D. C. Wilkins
*P. E. Kapff	

Midwifery

*A. Abdool-Raman	Joan M. Montague
L. P. Balfour-Lynn	F. G. M. G. Myer
M. H. H. Bishop	*J. M. Newton
J. Dennis	J. F. Pritchard
*P. N. A. Holden	W. A. G. Roper
*B. G. Jackson	H. R. Whitaker

* Have completed the Examination

Diploma in Laryngology and Otology

D. F. N. Harrison

Diploma in Medical Radiodiagnosis

V. H. Bowles

SURGICAL SELECTIONS.

1. Dr. Rink	11. Mr. Gibberd
2. Mr. Blackburn	12. Dr. McConnell
3. Mr. Cook	13. Mr. Slesinger
4. Mr. Massie	14. Mr. Cann
5. Mr. Lawrie	15. Anæsthetic
6. Mr. Blaikley	Registrars
7. Mr. Kilpatrick	16. Sir Heneage Ogilvie
8. Mr. Eckhoff	17. Mr. Glover
9. Dr. Marston	18. Visiting Surgeons
10. Mr. Doherty	

PAPERS BY GUY'S MEN

Blacker, C. P., and others. Voluntary Sterilisation. A Symposium. *Eugen. Rev.*, 1952, **43**, 180.

Burn, J. H. Pigmentation of the Skin. *Brit. J. Derm. Syph.*, 1951, **63**, 431.

Chick, A. O. The Relation Between Mandibular Movements and the Occlusal Form of Teeth in Man (1). *Brit. dent. J.*, 1952, **92**, 29.

Cope, R. W. Anæsthesia in War. *J. R. Army Med. Cps.*, 1951, **97**, 445.

Covell, Gordon, and another. Clinical Chemotherapeutic and Immunological Studies on Induced Malaria. *Brit. Med. Bull.*, 1952, **8**, 51.

Drew, A. J. The Late Results of Arthrodesis of the Foot. *J. Bone Jt. Surg.*, 1951, **33**, 496.

Foxon, G. E. H. A Radiographic Study of the Passage of the Blood through the Heart in the Frog and the Toad. *Proc. Zool. Soc. Lond.*, 1951, **121**, 529.

French, J. M. Further Studies in the Radiology of the Small Intestine. *Gastroenterologia*, 1950–1, **76**, 343.

French, J. M., and another. The Small Intestine Pattern in Normal Children and in Cœlic Disease. *Brit. J. Radiol.*, June, 1951.

French, J. M., and others. Relationship of the Nature of the Opaque Medium to Small Intestine Radiographic Pattern. *Brit. J. Radiol*, December, 1950.

Herbert, W. E., Clarkson, P.C., and Rushton, M.A. A Case of Diffuse Osteitis Fibrosa with Remodelling of the Jaw by Intra-Oral Approach. *Brit. dent. J.*, 1951, **91**, 317.

Ingram, Frank L. Everyday Procedures in Dentistry. Dental Radiography. *Brit. dent. J.*, 1952, **92**, 44.

McKeown, Thomas, and another. Sex Ratio of Stillbirths Related to Birth Weight. *Brit. J. Soc. Med.*, 1951, **5**, 229.

McKeown, Thomas, and others. Secular Changes in the Incidence of Malformations of the Central Nervous System. *Brit. J. Soc. Med.*, 1951, **5**, 254.

CHANGES OF ADDRESS

Alfred W. Ewing, M.B., B.Ch., M.R.C.S., L.R.C.P., Courtlands Hotel, Boscombe Spa Road, Boscombe, Hants.

A. N. Du Plessis, L.D.S., R.C.S., 103–106, Trust Buildings, West Street, Durban, S. Africa.

A. A. W. Fooks, L.D.S., R.C.S., 12a, Grosvenor Street, London, W.1. Tels. : Mayfair 0734 and 4161.

H. Lester, L.D.S., R.C.S., 37, Handen Road, Lee, S.E.12. Tel. : Lee Green 3555.

BIRTHS

GARLAND.—On January 25th, 1952, at Nuffield House, Guy's Hospital, to Bunty (née Parsons), wife of Gordon W. Garland, M.R.C.O.G.—a sister for David (Jennifer Mary).

SALMON.—On January 5th, 1952, at Nuffield House, Guy's Hospital, to Maude (Pip) (née King), wife of L. F. W. Salmon, F.R.C.S.—a brother for Elizabeth and Richard (David).

TIBBS.—On January 19th, 1952, to Paddy (née O'Meara), wife of D. J. Tibbs, M.C., F.R.C.S.—a daughter (Deborah Ann), sister for Teresa, Nigel and Brendan.

DEATH

CRAWFORD.—On January 22nd, 1952, Hugh Gregan Crawford, O.B.E., M.C., M.R.C.S., L.R.C.P., of Knights Hill, Walsall, Staffs.

EDS. { R.G. / P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1659 *23rd February* 1952 *One Shilling*

PASSIM

SOME little while ago we had occasion to visit the Reports Registry in search of some old case papers. Not only were we agreeably surprised by the exact manner in which the notes of long bygone years were conveniently preserved and indexed but, on closer inspection, we were even more impressed by the neatness, elegance and comprehensiveness with which the ward clerks of those days had compiled their records. By contrast, the bed letters which had survived bore but the scantiest and most cryptic of remarks.

Today, the state of affairs is very often reversed. The housemen's notes are frequently extensive (but not always well ordered), so-called " pro-formas " abound, notably in the special departments, and in the end the students' efforts are in many instances scrappy, unattractive, sometimes illiterate and almost invariably inadequate. As a result there is some danger of surrendering what Mr. David Patey recently referred to in a paper read before the Royal Society of Medicine as the " keystone of the British system of clinical education," namely, the direct association of the student in a responsible capacity with the patient to whom he has been assigned. The majority of our consultants, groping against the odds of illegibility, diffuse composition, irrelevancies and disorder, do their best to teach from those ward clerks' notes which are unapologetically offered to them. The skill of the masters on these occasions when, without more than a moment's hesitation, the grain is sorted from the chaff and, indeed, loaves made even without flour, is truly admirable. So often, no mention of the age of the patient is made at all, occupation escapes interest and even the presenting symptoms may be omitted. Yet so vast is the family history that it would do credit to Somerset House and the personal history reads like an assiduous biography of unblushing candour, the various incidents and episodes jostling one another with about as much relevance as the items in an auctioneer's catalogue. After all this, the account of the present complaint may be compressed into the space of a couple or so lines, while the details of the clinical examination, though insistent on the elimination of numerous classical heart murmurs, may virtually neglect the very system that is of any real consequence. The description of the lymph nodes in a case of Hodgkin's disease may, for example, extend to no more than half-a-dozen words.

It is easy, we know, to blame the ward clerk and to deride his generally well-intentioned endeavours, but he is grappling with the unknown and vainly attempting to recognise the unfamiliar. For the sake of our honour with posterity, as a means of fostering the discipline of expression and by way of encouraging a sense of useful contribution to the activities of the firm as a whole, may we plead that more attention should be paid to the clinical notes and that, where the student is unable to achieve more by his own resources, he should be given advice on editing and the order of his reports in general, by the registrars from time to time and by the chiefs as the opportunity should arise.

Though that youthful " virility and freshness in the best Oliver Wendell Holmes tradition " of which the *Practitioner* has spoken in reference to American journalism may not necessarily be the end in view, nevertheless that in itself represents a great improvement over much of the writing that we find in the notes today. The Hospital of Addison and Hilton, to name but two of our gifted writers who have left us examples of their art, should surely be in a position to boast records that are beyond citicism, not only in the medical content but by literary standards as well.

Heart Disease—Real and Imaginary

By MAURICE CAMPBELL, O.B.E., D.M., F.R.C.P.

Physician-in-Charge, Cardiac Department, Guy's Hospital

A Clinical Lecture delivered at Guy's Hospital Medical School on Friday, 13th October, 1950

LADIES AND GENTLEMEN,—I want to talk to you today about heart disease—real and imaginary. It is a subject of great importance. It is always important that you should be right in your diagnosis, but when the heart is in question it is doubly important because patients realise that the heart is vital to their existence and the lay view particularly associates heart disease with sudden death. Therefore the diagnosis of heart disease often causes great anxiety and should not be made unnecessarily.

There is a second reason that makes the wrong diagnosis of any heart condition most undesirable. If Dr. A. tells the patient that he has heart disease and Dr. B. says that he has not, the patient always feels that Dr. A. is the more clever and has been able to find something that Dr. B. could not. Therefore Dr. B. is under a great handicap in reassuring the patient and the anxiety caused may last for a very long time. I have in mind a student at this hospital who, when he arrived in this country, was seen by a cardiologist and, for some extraordinary reason, told that he must not walk upstairs more than he could help and must be careful about his heart. This was a poor start for a career as a medical student : in due course he came to see me about this, and I could never discover the ground on which the diagnosis had been made. He may have had some transient infection: perhaps he had a few symptoms that would have been cured by a short holiday. Generally he was quite fit and was able to take part in games and rugger, but once a year or so throughout his medical course these anxieties recurred—I will not say it was always just before examinations, but it happened in times of stress—and he needed reassurance that nothing fresh had developed, and that there was no trouble with his heart. After 20 years his heart is still normal. This will remind you not to make the diagnosis of heart disease lightly, and I would suggest that when you have doubts you should keep them to yourself for a time until you have made up your mind what is to be said.

I should like to put one principle before you which applies to all diagnoses but is, I think, particularly important in relation to the heart. Some symptoms and physical signs are so reliable that even alone they are enough for a diagnosis. But in general a diagnosis is best established if you have two independent signs or symptoms that point in the same way. Often, of course, you may have four or five or more, but when you have to rely on one symptom or on one physical sign you should exercise special care in the diagnosis of heart disease. I shall come back to this point when I am talking about physical signs and about the danger of making a diagnosis on what you think to be a cardiac enlargement or a systolic murmur unless it is supported by other evidence.

This morning I want to talk about the question of established heart disease rather than about the heart in infections. When a patient is in bed with a temperature, the problem is rather a special one, and his heart may be affected temporarily. If you feel there is any necessity to mention the heart it should be done with emphasis on the temporary nature of the disorder. Frequently the symptoms of which a patient complains when after a few weeks in bed with a temperature he gets up and feels short of breath, may be put down to his general condition without any special mention of the heart : unless you are particularly anxious to limit a patient who, you think, will not otherwise pay adequate attention to what you tell him. There are few infections that produce any permanent effect on the heart. You all think at once of rheumatic fever as an example to the contrary, and there, of course, you often have a patient who needs to be kept in bed, perhaps for a long time, and you will need to mention the heart to him or more likely to his parents. But this is an exception.

Diphtheria is a good example of the other extreme. It can produce severe changes in the myocardium—changes so severe that they are the commonest cause of death in diphtheria. But you cannot go to a cardiac clinic and ask to be shown the late results of diphtheria on the heart. There are no after effects and every patient who does not die recovers completely. Follow-up studies and general experience both confirm this, and the rule is only emphasised by the rare exceptions where you may find a persistent case of heart block or bundle branch block. In general, when you are dealing with an acute infection, there will be little need for mention of the heart. Today in the main I want to talk about the presence or absence of established heart disease.

Let me give you the history of two patients whom I saw at about the same time—fifteen years ago. One was the head of a large business and he was very anxious about his heart. He had reached the stage of thinking he needed a day's rest in bed—I will not say every week, but very often. The symptoms of which he complained were not those that are found in the presence of heart disease. He said that sometimes he woke up feeling tired as though he could not face the problems of the day and that he had an ache over his heart. Today, he is leading a more active life than he was then, and is less concerned about his heart than he was, though he was not at all pleased at being told that his heart was normal. He had failed to solve certain emotional problems in his life and enjoyed the attention that his heart and a day in bed gave him from a sympathetic wife, who has since left him. I am sure that when he woke up and felt that he could not face the business or domestic difficulties that beset him, he thought that a day in bed would be the best way out. You would have been very unwise to have told him that his heart was normal without examination, but the bizarre symptoms of which he complained made me start my examination expecting to find the heart normal.

Curiously enough, an assistant of this same man came to see me at about the same time. He was much less worried about himself and came rather reluctantly on the advice of his doctor, insisting that there was really nothing much the matter. His only complaint was that he admitted to being a little short of breath on exertion, and there seemed no adequate cause for this in a young man except his heart. On examination he had slight mitral stenosis, and slight enlargement of the heart. During the course of the fifteen years since then he has developed auricular fibrillation, his heart has got larger, and he has gradually had to restrict his activities but has managed to continue his work. I was very disappointed a week or two ago to hear of his sudden death while driving a car because when I last saw him a year ago he was particularly anxious to work another four years, when he felt that he would have discharged many of his most important responsibilities and would not mind so much being incapacitated, and I hoped that with care and with cutting down his work he might have been able to manage this.

It is not, of course, true that the patient who thinks there is nothing the matter always has something the matter, and vice versa, but there is some truth in this, and the two patients whom I have described illustrate this point.

I want to run through the various ways in which patients present to you and some signs and symptoms that might seem to justify the diagnosis of heart disease and that should be considered with great care.

Diagnosis depends on knowing what is possible. One of the objects of pathological teaching, e.g., of the Museum classes as given at Guy's on medical pathology, is to make you familiar with the possible pathological changes that may be found in different organs and their relative frequency. So that, for example, when you find that a patient has signs of solid lung you can picture the various conditions that are likely to give rise to this. When any patient comes before you with symptoms and with or without added physical signs you must try to get a picture of his complaint : often you can think of three or four possible explanations and must try to decide which of them suits his condition best and what test examinations you must undertake to prove which is the right answer.

Until you have really made up your mind what you think and what you want to say to the patient, you should be careful that you do not talk too much about the diagnosis and the patient's condition. Whatever you may think about your

skill in hiding your thoughts from your patient you are probably not as successful as you suppose. It is a point to which you should pay attention, because you may be uttering reassuring words with a face that conveys the gravest anxiety. I do not come from Scotland so perhaps I may say that is why many Scottish doctors are so successful in practice ; it is so much more difficult to know what they are thinking about and they do not convey their immediate reactions to the patient.

PHYSICAL SIGNS

Symptoms are the most important part of what I am going to talk to you about today, but because they are so important and I could spend so much time on them, I am going to discuss some physical signs first and then see how much time is left. Physical signs are easier to deal with. You may be surprised at my remark that symptoms are more important than physical signs. In the hospital we try to collect physical signs for you. Unless you learn about them at a relatively early stage of your career you never will, and teaching hospitals contain an unduly high proportion of patients with physical signs. You will find as time goes on that most of your patients do not present much in the way of physical signs and that you have to make your diagnosis on symptoms. This applies with great force to heart disease. In one important condition—coronary disease—the diagnosis is entirely on symptoms and physical signs are frequently absent or unimportant.

When planning this lecture I hoped to speak about a large number of symptoms and physical signs, but there is not really time to do this adequately and I am going to speak mainly about three important symptoms, breathlessness, thoracic pain and loss of consciousness, and three important physical signs, systolic murmurs, enlargement of the heart and œdema of the ankles, and try to emphasise the importance that these have when they are genuine, but at the same time, the errors they may give rise to if mistakes are made about them.

Aortic incompetence. I have warned you against making too definite a diagnosis on a murmur alone or on one physical sign, but some signs are so straightforward and decisive that they justify a diagnosis even without supporting evidence. Perhaps one of the most clear-cut examples of this that I can give you is the finding of a diastolic murmur in the aortic area. The presence of this alone is pathognomonic of aortic incompetence and there are few exceptions or difficulties if you are once certain you have heard this murmur.

Enlargement of the heart. If the apex beat can be felt near the mid-axillary line, you need no other physical signs to support the diagnosis of cardiac enlargement. You can be sure of this as soon as you have tested that it is not merely pulled over by disease of the lung—a possibility that must always be remembered. You will probably have some supporting evidence that the enlargement is due to valvular disease or hypertension and you will probably find supporting symptoms as well.

Here we have good examples of two physical signs that are enough by themselves for a diagnosis of heart disease. Symptoms, however, still remain more important. One patient with a diastolic murmur in the aortic area may live for forty years and lead a reasonable life, while another may be unlikely to live more than two or three years, and the symptoms will probably help you in reaching a conclusion. Nevertheless, the physical sign of an aortic diastolic murmur is enough by itself to give you a diagnosis.

You should be suspicious of enlargement of the heart as the single physical sign establishing the diagnosis of heart disease. We still see too many men and, to a lesser extent, young women, who have been told that they have an enlarged heart : nothing else has been found, but because of it they have been limited as regards their games and other activities. I suggest that you should never make the diagnosis of an enlarged heart without knowing the reason for it or without X-ray support. If you find that the patient has valvular disease or hypertension you have a reason for it, but if you do not find any such cause look carefully for asymmetry of the chest. It is surprising how little scoliosis will cause the apex beat to be moved out to the left, and many people are told that they have an enlarged heart when what they really need are exercises for scoliosis. The same applies to many cases of sternal depression.

Such patients may not be protected against a wrong diagnosis even by the rule I have given you about looking for two independent physical signs, because the sternal depression and the abnormal position of the heart may lead to the production of an exocardial systolic murmur which may lead you astray. Therefore where you suspect enlargement of the heart do not be satisfied without finding the reason or making certain by radiology.

In emphasising the need for radiology I do not want to encourage you in failing to make up your mind on simple clinical grounds. This needs great emphasis in an undergraduate school. You see so many investigations done here, partly because many patients are unusual ones, and partly because we want to show you everything in the most certain way, and it is better, if I say that a heart is enlarged, that you should have an X-ray to see how accurate or inaccurate I have been.

Systolic murmurs. Another physical sign that may lead you astray—and this is perhaps the commonest error in the diagnosis of heart disease—is the systolic murmur. You should be suspicious of systolic murmurs that are not supported by anything else. This is not an easy subject because often a systolic murmur does give you an indication which you could not obtain in any other way that the patient has heart disease. It is not often the only indication of any serious degree of heart disease, but in a patient who has had rheumatic fever and recovered or in one who has heart disease secondary to hypertension, the systolic murmur may be the only finding ; and in many congenital cases also it is the most striking physical sign.

I cannot discuss at length what should justify you in paying attention to a systolic murmur because it is a large and difficult subject. Some problems become much easier as you get older and as your experience grows. I would instance the diagnosis of angina as an example. I do not often see a patient for more than two or three minutes without having made up my mind whether he has angina or not, and do not often feel the need for any special investigations in reaching a decision, although, of course, there are many difficult and borderline cases.

In contrast to this, experience has not always made it easier for me to solve the problem of a systolic murmur. I generally want the maximum of time with such a patient and all the methods of help in examination before reaching an opinion, because experience has shown that nearly all the rules about systolic murmurs have their exceptions. The difficulty of reaching a conclusion will emphasise that you must look for further supporting evidence and that without this you may need further investigation of the patient or may have to watch him for a time before reaching a conclusion. As an example of the associated physical sign, you must make a careful examination for a systolic thrill and if you find this, it proves that the murmur is significant. You may also find symptoms that are caused by the heart, which may make it easier for you to decide that a particular murmur is significant. Even in the cases where the systolic murmur is constant whatever the position of the patient, where it is well conducted beyond the apex and where it does not change with respiration, so that there are good grounds for assuming that it is an organic murmur, you should still hesitate to pay much attention to it unless you can find something else. For example, if you have found a systolic murmur that indicates a slight degree of aortic stenosis, it may be that the patient will have no symptoms for twenty or thirty years, and you will not do much harm by watching him for a time to make sure before you commit yourself to a diagnosis.

Œdema of the ankles. A less common but very important sign is œdema of the ankles. You know how fundamental this is to the diagnosis not only of heart disease but of the patient having reached the stage of congestive failure. I think it is the most important single sign, more important than distended veins in the neck. If, however, a patient is overweight or anæmic, œdema of the ankles should be considered with great care. I have made the mistake of diagnosing heart failure and finding in the course of some years that the patient did not go downhill as was expected but was rather better, and this has generally been in a grossly overweight patient where I have failed to make sufficient allowance for the effect of obesity in producing œdema of the ankles. If you examine your ankles the next time you walk twenty miles on a hot day, you will get a measure of the degree of swelling you can allow as within normal limits.

Remember that anæmia will greatly add to œdema, and do not be misled into diagnosing heart disease instead of anæmia. It may make the patient breathless in the same way and may produce a systolic murmur. Obesity and anæmia are two things you should always have in mind in dealing with the cardiac patient.

I am putting this in the form of a contrast between the presence or absence of heart disease, but remember that many patients with heart disease will have some symptoms due to it and others that are due to obesity or anæmia or anxiety. By no means all the symptoms that a young patient with mitral stenosis manifests are due to the mitral stenosis. You should ask yourself not only " Has this patient got heart disease ? " but also, " Which of these symptoms are due to the heart disease and which to anxiety ? " These extra symptoms are not always the fault of the patient, and much imaginary heart disease is the fault of the doctor. Bear this in mind when you are dealing with these patients and giving them advice. Many physicians would agree that the doctor's share in the production of imaginary heart disease is considerably greater than the patient's share.

The rule about looking for a supporting physical sign is very well emphasised by this problem of œdema of the ankles. If the œdema is due to heart failure you will find something else—distended neck veins, a congested liver, and probably enlargement of the heart itself. One should be slow to accept œdema of the ankles as cardiac without other supporting evidence.

Some modern teaching emphasises the distension of the neck veins as the best sign of cardiac failure. If you change this to a rise of venous pressure measured instrumentally I am prepared to accept it, but it is difficult to know sometimes whether the distended veins you see in the neck really represent a rise of venous pressure. If you walk round your ward one day looking at the neck veins of all the patients you will be struck by the variation among the normals, how easily seen and how prominent some of them are, and how difficult it is to demonstrate others because of the shape and amount of subcutaneous tissue.

I would like to illustrate this with one patient whom I saw a few years ago. Considerable swelling of her ankles was the main feature. Some time during the war she was diagnosed as having heart failure and was made to give up her work and rest in bed. The story as it came to me was of a healthy-looking, overweight woman of 35 who was being pushed about in a chair by a very underweight and worried-looking sister. I felt more sorry for the sister. Apparently the patient had had two years of illness during the war that was stated to be congestive heart failure, then got quite better, but later the illness started again. That, however, is not the way that heart failure behaves. None of her symptoms were those of heart failure. The story was that she woke up feeling that she must stay in bed. I do not know what was the matter with her at the start : she may have had acute nephritis or some curious type of angio-neurotic œdema, but nothing was wrong with her heart. The " heart " was a manufactured psychological illness due to the failure to put the right label on her œdema during the war.* I could analyse in the same way a number of other physical signs, but I must pass on to other things.

Mistakes about X-rays and electrocardiograms. I want to say a little about radiology. You must be careful not to take the enlargement of the heart too readily on the X-ray finding. The border line between abnormal and normal is difficult. Do not pay very much attention to the prominence of the pulmonary artery on the X-ray view as a reason for diagnosis. I often see a student where the only reason for the reference to me is the prominence of the pulmonary artery discovered at a routine X-ray examination, and I cannot remember an instance where it has led me to make a diagnosis of heart disease. The next point may seem very obvious, but is sometimes forgotten : if you have a portable X-ray taken because someone has pneumonia or pulmonary disease the heart will appear larger than it is. It may be difficult to decide what is the significance

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* Since I gave the lecture I have had a letter from her saying that for several months she found it difficult to accept my view but that now she felt well and was leading quite an active life.

of single X-ray signs. The routine X-ray examination is not in fact revealing a great deal of unsuspected heart disease. Generally, when a heart is picked out as abnormal after mass radiography it is found that the patient already knows that he has heart disease. In one careful analysis that was done in this way there were far more patients who thought they had heart disease but had absolutely normal X-ray appearances, than those in whom unknown heart disease was revealed by mass radiography. It may, therefore, be helpful as a means of getting rid of some of these imaginary cases.

Misinterpretation of electrocardiograms can also be a source of error. We are sometimes scornful of the previous generation of physicians because they paid too much attention to systolic murmurs and made too frequent diagnoses of mitral regurgitation. When I was Medical Registrar mitral regurgitation was by far the commonest disease indexed in the hospital records. We must take care that the next generation does not make the same criticism about electrocardiography. I am reluctant to make a diagnosis of heart disease on some small abnormality in the electrocardiograph without supporting evidence. If such cases are presented to you you should always look at them with great suspicion. You must not be too frightened of experts with machines. Not long ago I had a letter from a practitioner saying that he had thought a patient had auricular fibrillation but an electrocardiograph had been taken by another doctor who had written back to say that it was a case of heart block. Actually, the practitioner was quite right and though such gross errors are unusual, it is possible for less serious mistakes to be made and the results of the clinical examination of the patient should generally take the first place.

There are two or three points in which the electrocardiogram can give a certain and scientific answer and it must be accepted as right whatever the clinical evidence. The first of these are the arrhythmias. If I say the patient has auricular fibrillation and one of you has seen the electrocardiograph and finds extrasystoles, you are right against my views. Electrocardiography is decisive about most arrhythmias of the heart and although you ought as a rule to be able to decide without it, it can answer nearly all the more obscure problems of this type. There are, however, occasional difficult examples where experts can suggest different possible explanations, but those are the exceptions.

The other three things that we must accept absolutely from the electrocardiograph are inversion of the T wave in leads I and generally in II, gross S–T elevation or depression, and bundle branch block. These are enough by themselves and you do not need supporting evidence though you can generally find it. Most of the other things should be supported by other evidence.

SYMPTOMS

I have not left myself long to talk about symptoms and I can only illustrate particular points about a small number of important symptoms.

Dyspnœa. The first and most important symptom is, of course, dyspnœa. You may think that you cannot make any mistake if a patient has a story of breathlessness. In fact you will find that some patients have abnormalities of respiration that they describe as breathlessness or as a feeling that they cannot "get their breath". I am sure that each of you will come across a patient within the next year or two who describes such a story of breathlessness and more careful questioning will show that he means that he cannot get his breath and has to take deep breaths occasionally. It occurs generally in a patient who is bored or worried rather than in one with heart disease, and is more closely related to sighing or yawning than to dyspnœa. It is very important not to be misled by it.

Otherwise the diagnosis of dyspnœa has few difficulties. You must allow for the patient's customary life. If you have somebody who goes to his office by car six days a week, and eats too much during the day, and then starts to cut down a tree at the week-end, you may expect him to be dyspnœaic. You, with your good training and capacity to do anything at the week-end, will find it difficult to appeciate this in your patients of 40 or still more in those of 60. Often, dyspnœa is simply due to lack of training, but of course, most people are aware of it. It is the sudden changes in dyspnœa that are more significant from the point of view of heart disease.

Thoracic pain. Pain is perhaps the second most important cardiac symptom. In some ways it is the most important because the sort of heart disease that produces dyspnœa generally gives supporting signs, but a patient with cardiac pain will frequently have nothing else in the way of signs or symptoms. It is also the commonest symptom in imaginary heart disease. If a patient tells you that he has a pain in the mid-line, that it only lasts for a minute or two, but comes on with exertion and goes when he rests, it is almost certain that he has coronary disease, even without any supporting evidence. The first minute of the interview will usually give you the story correctly. If, on the other hand, he says that he has pain over his heart lasting for several hours and that it comes on when he is sitting about, the pain is more likely to be due to fatigue or anxiety or fibrositis than to coronary disease. I am presenting the contrast in its simplest form.

You all sometimes see a patient where it is more difficult to decide, because one feature points one way and another points in a different direction. But many patients will give an easy differential diagnosis because all these will suggest angina, or all three will point to what, for want of a better term, we may call sub-mammary pain. I do not know the physiological basis of this pain, but it represents fatigue and anxiety, and just as some people have a headache or indigestion when worried, others get this left-sided pain ; perhaps a patient with hypertension or mitral stenosis gets it more easily than other people because of his smaller cardiac reserve. We must remember that the literature of the world has talked about " broken hearts " for thousands of years, and the term has not been used without some good reason. It refers to pain of this nature rather than to the ruptured heart after a large cardiac infarct. When you are dealing with cardiac pain you must be interested in the psychological background of your patient as well. I remember a patient coming to consult me, who was quite certain that she had angina and that her career was finished. She was a fit-looking woman in her twenties, and it is very rare for anyone to have angina at that age and still more rare for a woman. Nor did her story suggest coronary disease. When she had this pain she felt quite unable to move, she had to keep her arm tightly pressed to her side : the pain lasted for hours and there were many other features unlike angina. You will only arrive at certainty in these cases as a result of your experience of seeing many of them and hearing their histories. After some time the true story was elicited : she had fallen in love with a married man and while she was unhappy about this with an ache over her heart, her uncle had died suddenly with a cardiac infarct. Normal people have many psychological problems and you are the one who should deal with these normal people, calling in the psychiatrist when you are confronted with abnormal and difficult problems.

Loss of consciousness. I have not left myself any time to talk about other symptoms, but I must just mention loss of consciousness, because these attacks will cause you very great anxiety in knowing what to say to your patient. This is one of the symptoms where you may have to go slowly before dismissing the question of heart disease. One thing will be of the greatest help to you, namely, whether the consciousness is lost slowly or quickly. If it is lost slowly and gradually, if the patient feels it coming on and has time to sit down, it is probably a reflex phenomenon and this is no more common with heart disease than with a normal heart. But if the unconsciousness comes on suddenly so that the patient falls and hurts himself, it may be very difficult to rule out serious heart disease and to decide whether the cause is cerebral or cardiac. This is one of the single symptoms to which you may have to pay a great deal of attention; it always calls for a very complete examination to make certain that you have no other evidence of heart disease.

I have only chosen three symptoms today—dyspnœa, pain, and loss of consciousness. I could have chosen many more, but the same sort of principles will apply to the others, and if you will think of your patients' symptoms on these lines you will be helped sometimes in deciding whether he has or has not got any disease of the heart.

Psychiatry Today—II

(Extracts from Chapter VII)

By DAVID STAFFORD-CLARK, M.D., M.R.C.P., D.P.M.

WIDE indeed as are the implications of psychological medicine when regarded as a field of human knowledge, one aspect which is of supreme importance to patients and to practising doctors, and probably of greatest interest to the general public, is the question of treatment. This will form the subject of the next two chapters. In general the same kind of divisions can be made in a consideration of treatment as we have already found helpful in considering both the clinical manifestations and the causes of mental illness in general. But the method of treatment which is most closely associated in the public mind with psychiatry, the method in which psychiatry has at present the most original record and the most important contribution to make to the essence of the problem, is that of psychotherapy. Psychotherapy means literally the treatment of the mind. It therefore could logically be applied to all methods of treatment for mental illness. But its use is in practice restricted to those methods which rely for their effect upon an exchange of ideas between patient and doctor directed towards relief of the patient's symptoms and distress.

The general aim of psychotherapy is therefore to improve the patient's capacity to deal with his own problems, to adjust himself to the conditions of his existence, and to make the best possible use of his own emotional and intellectual resources. Broadly speaking there are two kinds of psychotherapy, both having the same aim in common and both capable of further subdivision but differing essentially in that one kind seeks to alter the patient's circumstances or his immediate feelings about them so that they will become more bearable for him and his subsequent adjustment therefore easier, while the other kind devotes itself principally to the task of so altering the patient that his innate capacities for dealing with any circumstances are improved.

Another way of indicating the difference between these two types of psychotherapy is to say that while the first type aims to deal primarily with those symptoms or problems which the patient at least recognises as existing, even if he does not fully understand them, the second and necessarily deeper approach has the more fundamental goal of making him aware of faulty patterns of thought and feeling underlying his whole attitude to life, but neither present in consciousness nor immediately available to deliberate introspection.

Among the group of techniques coming under the first heading are those forms of reassurance, support, understanding and guidance, which can be said to include general counselling of the Dutch uncle variety at the most simple end of the scale ; while the more complicated applications of this technique, based upon a deeper understanding of the patient's problems gained through the knowledge we have encountered in earlier chapters, form part of the armoury of the general psychiatrist.

Also included in this group of psychotherapeutic techniques, but capable of auxiliary employment in any form of therapy, are those measures designed to provide meaningful occupations for patients in hospital or at home who are unable to carry on with the normal and sometimes uncongenial work of their daily lives. This type of activity is called occupational therapy, and its purpose lies in quickening the patient's interest and improving his morale by leading him to discover that there are useful things which he can still do successfully. A variety of constructive tasks are provided and their techniques taught by skilled professional occupational therapists. These are people who have been trained in a number of crafts of varying degree of difficulty and complexity, and who have also received some personal training in dealing with sick or disturbed individuals.

Occupational therapy provides contacts and interests which, although allied to the general purpose and direction of medical treatment, are separated from the immediate supervision and administration of doctors and nurses. In addition to the satisfaction and enjoyment which the acquisition and use of new skills can give to a patient, participation in occupational therapy can also

provide salutary change in personal and emotional environment for a patient who is finding his relationship with the nurses or his doctor difficult or distressing because of his illness.

Occupational therapy is not therefore simply a means of passing the time. It is an active method of treatment with a profound psychological justification. It is often a means whereby a depressed patient will take the first conscious step towards regaining hope and confidence in himself, or a schizophrenic will find a way of expressing his feelings which strengthens instead of weakening his contact with reality. In the quiet and constructive use of the hands to make things even the most unhappy can often find a strange peace. And this in turn can make them better able to accept and benefit from other forms of treatment.

Under the general heading of psychotherapy may also be included social measures which seek to alter the patient's environment without necessarily involving the patient himself at all. These include recommendations about conditions of work, provision of alternative employment or housing, general advice to employers or members of the family all aimed at eliminating some of the major difficulties with which the patient has found himself unable to contend. These are the province of the trained psychiatric social worker acting under the general supervision of the doctor and will be more fully discussed in the next chapter.

The second kind of psychotherapy consists essentially in an individual approach undertaken with the particular patient whereby a definite and permanent change in his personality is sought. The key to this type of procedure lies in increasing the patient's awareness of the real nature of his problems and his own methods of dealing with them, and is less concerned with reassurance or support of his existing capacities.

Both types of psychotherapy, which we shall presently consider in some detail, can be administered over long or short periods of time, either individually or, in some circumstances, to groups of suitable patients who come together for this purpose. In so far as any attempt to improve the happiness and well-being of an individual by dealing with his feelings and ideas can be called a form of psychotherapy, just as any attempt to improve his bodily health no matter how amateur or inexpert can be called a form of treatment, it is arguable that encouragement at a purely social level by friends or relatives might be included under this heading. In point of fact the majority of patients who come for treatment to a psychiatrist have had a great deal of this kind of gratuitous advice and therapy before any more serious attention has been given to their problem.

Both kinds of psychotherapy rely for success upon the establishment of a working relationship between doctor and patient ; and this in turn implies a capacity on the doctor's part to manage this relationship with tact, honesty, integrity, and detachment. This last is an indispensible component of the relationship on the doctor's side; far from implying that the therapist does not care what happens to his patient, it must enable him to make the best possible use of his concern for his patient's health and happiness by preserving intact the judgment and clear sightedness about the patient and his problems which can only come if the therapist is not himself emotionally involved. This is why it is absolutely impossible for a psychiatrist to treat successfully or even competently intimate friends or members of his own family. Moreover, as we shall see later on, it is eminently desirable that he should have as little social contact with his patients outside the treatment relationship as possible.

That type of psychotherapy which, either because of the patient's limitations in time, mental or physical adaptability, or willingness to contemplate the risk and effort involved in more radical treatment, confines itself to an acceptance of the patient as he is and to reinforcement of his existing assets without attempting to change or widen his self-awareness in any way, may still require considerable skill, experience and training if it is to accomplish more than the usual advice and encouragement which is apt to be so freely proffered on all sides. Normally it takes the form of a series of interviews, which resemble superficially most other kinds of interview that the patient may already be used to having with doctors or lawyers or potential employers, except that here there must be ample time for the patient to describe hi-

difficulties, and the doctor must be disposed to listen to them with unwavering patience and attention. The form of the first two or three interviews will in fact be dictated by the doctor's need to gain a complete life history of the patient, both from what he himself can tell and from what any reliable informant in the family can add. A history of this kind is noted by the doctor, within the framework and under the headings which he has been trained to hold in his mind and to make the focus of his initial inquiries.

Such a history will in fact cover all the ascertainable circumstances of the patient's birth, early life, and development, physical and emotional growth and maturity through school days, adolescence, and subsequent career. It will embrace the history of previous mental and physical health in the patient and his family, the pattern of family life and personal relationships, and what can be deduced about the previous personality of the patient himself. Within the first few interviews it should be possible for the doctor to gain an understanding of his patient in some ways more comprehensive and detailed than perhaps has ever been gained by any other single person, including of course the patient himself.

Bearing in mind what we have seen of the significance of physical and emotional factors in the growth and development of all human beings, and the special importance of their early life and the patterns of behaviour which they have acquired during this time, it is evident that the picture which the doctor should be able to acquire of the patient, and the general direction and significance of the tendencies which he sees revealed in that patient's life, should enable him even at this early stage to form a reasonably sound idea of the genesis of the patient's symptoms and the way in which the stresses which he has encountered may be lightened or relieved.

Thereafter such advice or explanation as the doctor has to offer will be based *not* upon his own personal feelings about the desirability of any particular solution, still less upon a projection on his part of what he would do if he were in the patient's shoes, these being the two shortcomings from which so much well-intentioned advice so often suffers, but will rest upon his objective assessment of the patient's particular needs and possibilities gained from the knowledge of the patient which he has carefully acquired and accepted without prejudice. At the same time he may feel that the social circumstances of the patient, and the emotional complications of his family life or employment, may well be modified successfully with the aid of further investigation and personal work with the family or employer by a trained psychiatric social worker.

He may also consider that the patient will require periodic advice and supervision over some time in order that the readjustment which is desirable may be followed up and consolidated. From the standpoint of the patient, the knowledge that there exists somebody who not only understands him and his symptoms, but who is able to accept him without hostility or distress, to explain to him the nature of his difficulties and their connection with the symptoms which he has developed, and to help and support him through the stresses which underlie these symptoms, is in itself often of very great help and comfort. It may enable such a patient to resume work and domestic responsibility which hitherto had proved impossible and to take his place once again as an active member of the community.

Achievement of this kind, based essentially upon a comprehensive and detailed study of the patient's life, family background, and personal development, which is then subjected to careful and dispassionate analysis in the light of the doctor's knowledge of general medicine, normal psychology, genetics, and psychopathology, represents as it were the first line of defence against mental illness which the medical profession has to offer ; and much of the avoidable unhappiness caused by fear, anxiety and guilt in daily life, can be successfully relieved or prevented in this way. Often it is quite unnecessary to confront the patient with more than a fraction of the underlying implications which such a study of his life has revealed. Indeed, by definition we are devoting this section of our description to the treatment of those patients for whom deeper insight is either impossible, unacceptable, or perhaps dangerous. But as a basis for any kind of professional advice, explanation or reassurance, insight on the part of the doctor, an insight as accurate and complete as his skill and training can provide, is indispensible.

It is not too much to hope perhaps that one day psychotherapy of this limited but invaluable kind may be available to everyone who needs it. This could be achieved if only one tenth of the total time spent in training doctors were devoted to the teaching of this technique and to practice and experience in its use.

The more ambitious type of psychotherapy is that aimed at providing the patient with a varying degree of insight into his own conscious and unconscious life, into the deeper relationship of symptoms to emotional conflict, and thereby enabling him to achieve an awareness of himself which will not only help to arm him against his present difficulties but will make it easier for him to control at least a part of his fate in the future. The aim here is not to make decisions for the patient, nor to offer him advice. It is so to increase his own awareness that the decisions he makes himself will be based upon a fuller understanding of the motives which are prompting them.

It is easy to see that, at any rate to begin with, this is a far less comfortable and acceptable sort of treatment for the patient than the former kind, whereby at least a proportion of his burdens can be laid on the shoulders of his doctor. It is in fact a more difficult form of treatment for both the doctor and the patient since it imposes a considerable strain upon both, and does not permit the doctor to relieve his anxiety about the patient by taking the patient's fears out of his own control.

Of all the forms of treatment which share this aim of increasing awareness and thereby liberating the patient from the bondage of unconscious conflict and emotion, the outstanding and pioneer contribution was that of Freud who built up the system of investigation and therapy known as psychoanalysis. It is around the technique of psychoanalysis that almost all the popular conceptions of psychiatry have been built up. There belong the couch, the recumbent patient, the wise, silent, and in the popular eye, faintly ludicrous figure of the psychiatrist, industriously writing down the random and remarkable statements uttered in the secrecy of the consulting room. All this of course is a heaven-sent gift to the robust opponents of psychological medicine in any form, as well as to the lively satirists and cartoonists whose admirable task it is to reflect our pompous foibles and to invite our mirth. The psychiatrist who resents this barrage of ridicule, by no means all of it malicious, is partly at the mercy of his own inner insecurity. In this he is of course only human. But lurking behind this confusing blend of popular interest and suspicion, which is responsible both for the recent avalanche of films and books with a psychiatric theme on the one hand, and the cartoons of parrots reclining on couches unburdening their souls to solemn bearded men, on the other, there is the familiar and perfectly sincere conflict of feeling which we have seen characterising the public attitude to mental illness from time immemorial. What really goes on in the course of psychoanalysis of an individual patient ? For those who have borne with me thus far it should not prove too difficult to discover and understand the answer to this question.

The initial interviews are likely to follow the same general pattern as those of any other psychotherapeutic procedure. So far as possible the history must be obtained and noted in an orderly and comprehensible way in the analyst's records. Thereafter it is the task of the patient to produce, out loud and absolutely without suppression or selection of any kind, all his thoughts and feelings about whatever is uppermost in his mind. This may sound difficult, but in practice it is far more difficult even than it sounds, at least in the early stages of treatment.

Offered the hitherto inconceivable opportunity of acknowledgment and expression, many of the ideas which rise into the patient's mind are thrust down almost before he has time to become aware of them ; and this of course is preconscious rather than truly unconscious material. How much more difficult still is that acknowledgment of the underlying source of such ideas, which can only be achieved with time, practice, and above all a confidence which at the outset no patient can possibly have.

The nature of the immediate practical difficulties of conforming to this one essential rule of procedure, namely that nothing shall be suppressed and nothing selected, demands that every possible measure which will help the patient to do his part of the work, be adopted. It is for this reason and this alone, that

patients are encouraged to lie down, to relax completely, to look at nothing more exciting than the ceiling, and to talk without the visible presence of another person to distract them. The analyst sits out of their range of vision, and as long as they are able to continue their part of the job, may have no cause for intervention of any kind. But all the time the analyst is recording, sorting, and studying the material produced, bearing in mind its possible interpretations and its correlation with what has gone before, so that as the analysis proceeds he accumulates a deeper source of understanding of the patient which he does not obtrude into the process, but uses only when, without his help, the patient cannot go further.

Inevitably and repeatedly any patient consciously doing his best in this way encounters resistance in his own mind, violent feelings which he cannot or dare not pursue further, and often finds when approaching the outer defences of some long-buried painful memory or feeling, that he cannot go on. We know from our brief survey of normal psychology and psychopathology that much of what must inevitably cause him difficulty and distress will date from the earlier personal relationships which have been connected with intense and conflicting emotion. The release of such emotion in the course of treatment, before its source has reached awareness or been understood and accepted, is in itself intensely disturbing and the patient instinctively seeks to rationalise or project the emotion which he feels. Under the conditions of treatment the person who is inevitably selected for this rationalisation or projection is the analyst.

In this way during the course of treatment the patient comes to feel the love and hatred, the dependence and the rebellion, rivalry or rejection towards the analyst, that he has felt but never fully acknowledged for other people in his life ; people whose impact has been earlier and inescapably close, people such as his parents, his first love, or the friends and enemies, heroes and villains of his childhood. This uncritical and barely understood investment of emotion in the person conducting the treatment is called the transference. Normally it begins by being positive in the sense that the natural gratitude and respect which the patient feels for someone who is prepared to take a considerable amount of trouble in helping him, is uppermost. No transference ever remains wholly positive throughout the course of treatment ; and if it did, nothing of fundamental importance could be achieved, for no unbearably hostile emotions would be uncovered.

Sometimes a transference may become almost entirely negative and then the course of treatment, perhaps the patient, and sometimes the analyst, will be in danger ; but the control of the transference, the regulation of its depth and intensity, are to a great extent in the hands of the analyst since he has the underlying interpretation available for use as the occasion demands. To interpret or interfere with the transference too early is to deprive it of the strength necessary to enable the patient to carry on with his already difficult contribution to the treatment. It is also, at a deeper level, to imply a tendency on the part of the analyst to escape from the obligation of his part in treatment, and may even spring from his own anxiety or insecurity if this has not been adequately dealt with in the course of his training. But to interpret inadequately or too late, or to fail to deal with the transference situation at all, is to risk the development of a total dependence on the part of the patient which may be a more serious complication than the illness with which he presented himself.

The handling of the transference situation is thus of vital importance in the course of psychoanalysis as indeed in the course of all forms of psychotherapy. It is the existence of the transference which both enables the patient to discover the nature of his underlying feelings and then to acknowledge them. Once this has been done he often finds himself able to regard them in a far more tolerant and dispassionate light and so be liberated not simply from their effect upon his past but from their influence upon his future.

The task of the analyst is at first to establish a working relationship and to gain an overall appreciation of the nature and probable trends of the patient's personal problems and ways of dealing with them, and then working within the influence accorded him by the transference relationship, to help the patient acquire insight into his own personality and to acknowledge the implications of his own emotions, as they emerge in the course of treatment.

He does not give advice nor impose restrictions upon the patient's life outside the treatment ; nor, in the course of orthodox analysis, does he attempt in any way to direct the sequence or the course of the patient's own self-examination. This naturally means that an analysis is apt to be a very lengthy and time-consuming procedure. The patient may spend many interviews working through or around a single conflict in all its ramifications in his personal life ; moreover he may evade or shelve problems as long as his own emotional tension permits him to do so. The analyst may interpret such resistance if he feels that the patient cannot otherwise surmount it, but he does not make such interpretations simply to speed up the procedure.

The advantage claimed for this method of treatment is that when completed it is radical and exhaustive. What has been spent in time has been repaid in depth and degree of awareness and consequent stability. In practice a full analysis demands not less than three to five interviews a week for anything from two to four years excluding only the inevitable breaks caused by holidays and absence of doctor or patient. Any procedure which demands so much expenditure of time is inevitably costly. Moreover it is suitable only for patients whose intelligence, determination and resources of time and money are sufficient to enable them to go through with it and to profit from it.

It is thus a highly selective and self-limiting form of treatment and moreover it can be practised safely and successfully only by those whose training has fulfilled certain rigorous conditions which we shall be examining in a later chapter. But despite these limitations it is a procedure of great importance. This importance derives not simply from the results which it can produce in individually suitable patients, but from the body of knowledge which the method has contributed to psychopathology and most of all from the application of both the knowledge and the method in modified form to the evolution of various techniques of briefer psychotherapy devoted to the attainment of insight, but aimed at providing this at least in its immediate essentials within a matter of weeks or months, and by means less expensive in time and money.

———

Admission to Guy's

We have been asked to remind Guy's men who have sons or daughters who wish to apply for admission to the School in October, 1953, that applications for admission to the Medical School at that date must be sent to the Dean before 31st July, 1952. Applications for admission to the Dental School in October, 1953, should be sent to the Dental Sub-Dean between 1st July and 31st December, 1952.

———

Debate

On Tuesday, February 26th, the Dental Society will act as hosts to the Debating Society in a joint debate on certain aspects of present-day dentistry. It is not possible at the present moment to give the actual terms of the motion, but it is known that the Debating Society is composing one calculated to cause the largest possible explosion in the Dental School. The Debate will be strictly for amusement only, and all medical and dental students are heartily invited to attend this contest of wit, if not wisdom, in the Dental Lecture Theatre at 5.15 p.m. on the 26th February. Tea will be taken in the Lower Spit at 4.45 p.m. for which tickets can be obtained by medical students from the Secretary of the Debating Society, and by dental students from the Porter in the Dental School.

Review

Chronic Bronchitis. By TREVOR HOWELL. Butterworth. *Price* 17*s.* 6*d.*

In about a hundred pages the author summarises what is known about this common and distressing condition and adds some information drawn from his own extensive experience of chronic bronchitis which he has studied in hospital and in general practice as well as among the Chelsea Pensioners and in the tropics. His section on treatment contains several valuable ideas. Where he writes from his own experience the book is first-rate, but he is, on occasion, liable to confuse the issue by excessive reference to the conflicting opinions of other authors. This fault is particularly evident in his chapter on Physical Signs. Nevertheless, this is a valuable book, and the author is to be congratulated on directing our attention to this common and crippling disease, about which we know so little. R.E.I.

February **ACADEMIC**

		Exhibition. Surgical Department. "Pott's Disease."
25th	4.45.	Department of Child Health. Films. "Your Children's Play" and "Problem Children." Anatomy Theatre.
26th	1.00.	Dr. McConnell. Clinical Lecture. "Domiciliary Anæsthesia."
27th	5.00.	Dr. Knott. Lecture. "Developments in Prophylaxis." New Pathology Classroom.
28th	1.00.	Dr. Hardwick. Clinical Lecture. "The Diagnosis and Treatment of Diabetes Mellitus."
	5.00.	X-Ray Meeting. Gordon Museum.
29th	1.00.	Dr. Grant. Clinical Lecture.
	2.15.	Department of Medicine. Combined Round. Preclinical Classroom.
March		
		Exhibition. Surgical Department. "Varicose Veins."
1st	10.00—4.00.	Annual Dental Clinical Meeting. Dental School.
3rd	12.00.	Mr. A. R. F. Thompson. Dental Clinical Lecture. "Fixed Bridgework." Dental Theatre.
	1.00.	Dr. Wayte. Clinical Lecture.
	5.00.	Department of Surgery. Film. "The Treatment of Adamantinoma." Clinical Theatre.
5th	5.00.	Professor J. Whillis. Lecture. "The Hand." New Pathology Classroom.
6th	1.00.	Dr. Craft. Clinical Lecture. "Surgical Amputations and the Fitting of Artificial Limbs."
	5.00.	X-Ray Meeting. Gordon Museum.
7th	1.00.	Dr. Boland. Clinical Lecture.
	2.15.	Department of Medicine. Clinico-Pathological Meeting. Gordon Museum.
8th	10.00.	Department of Surgery. Medico-Surgical Discussion. Clinical Theatre.
10th	1.00.	Mr. Brock. Clinical Lecture. "Guy's Hospital Reports."

March **SPORT**

1st Rugby 1st XV *v.* London Welsh. (Herne Hill.)
„ "A" XV *v.* London Welsh "A". (H.O.P.)
„ Extra "A" *v.* London Welsh Extra "A". (H.O.P.)
„ Wanderers *v.* Westminster Hospital Extra "A". (Motspur Park.)

7th University of London Boxing Club. University of London Championships for the Blott Cup.

8th Rugby 1st XV *v.* Llanelly. (Llanelly.)
„ "A" XV *v.* Gidea Park. (H.O.P.)
„ Extra "A" *v.* Old Paulines Extra "A". (H.O.P.)
„ Wanderers *v.* Gidea Park "A". (Gidea Park.)
„ "B" XV *v.* Old Paulines "B". (Thames Ditton.)

PHYSICAL SOCIETY—CLINICAL MEETING AND FILM SHOW

The next meeting will be held on Thursday, February 28th. Cases will be shown at 5.45 p.m. in the Preclinical Classroom. After supper the discussion of the cases will be preceded by a film never yet shown publicly before, called, "The Early Diagnosis of Cerebral Palsy." This part of the meeting will be held in a theatre to be announced later by the presidents, Mr. A. S. Dominick and Mr. E. D. Tomlin.

Obituary

PERCY BERNARD SKEELS

GUY'S has lost, in the sudden death of Percy Skeels on January 5th, a strong partisan, a stout defender of the Hospital and all that came from it, a character—solicitor, doctor and coroner—that would have delighted Dickens : his enthusiasm for both professions, his keen interest in humanity, his delight in company and conservation, his Victorian insistence on absolute domestic rectitude whilst enjoying a good story that might demand colour from infidelity—these made him a Guy's man of unusual interest, a man to know better.

Skeels had deliberately turned to Guy's to qualify in medicine whilst enjoying a very lucrative practice as a partner in a conveyancing firm in the City : he could just about do it, for he qualified in the days when one could mix a social, even business or professional occupation with study at intermittent periods, " hotted up " as examinations approached by coaching and intensive night reading. He must have worked very hard, for he put all he had into both activities, enjoyed his family life, relaxed with zeal—obtaining a " half-blue " at cricket and playing hockey for Guy's with the same dash—qualified in 1925, became Deputy-Coroner in London the next year, and was appointed a full Coroner in the Metropolitan District of Essex in 1933. He immediately set about organising his services in pathology, turning to Guy's to provide trainees for this purpose, for, apart from Spilsbury, there was no one at that time who could be entrusted with delicate or onerous forensic work. The late Sir Herbert Eason found both pathological service and deputy coroners for him, and Skeels' district soon achieved interests for those who desired training in both Coroners' Law and Forensic Medicine which were hard to find elsewhere. He maintained most ably the dignity and traditions of the Coroner's Court for 18 years, serving as President of the Coroners' Society of England and Wales in 1945–6, and dying unexpectedly—and characteristically whilst in full cry—of a coronary thrombosis. As he might have wished most, he suddenly passed away in the Hospital for which he had so much affection. A large circle of old Guy's men will miss him deeply. C.K.S.

Guy's Physical Society

VISIT TO GLAXO LABORATORIES

On Wednesday, February 13th, members of the Physical Society, under the presidency of Mr. C. Bishop and Mr. M. K. Strelling, paid a visit to Glaxo Laboratories.

The interest of the visit was two-fold. First we saw the technique of controlled and careful mass production and packing of drugs. We were impressed by an apparently unhurried machine which accurately fills and seals some 14,000 2 cc. ampoules per day, and by operators who, with sieve and accustomed eye, pick out faulty Fersolate tablets from the many thousands which are made hourly. We noted the care which ensures the uniformity and sterility of the market products. Packers of streptomycin, for example, were almost surgically correct in sterile caps, gowns and gloves, with faces shielded from the drug by perspex screens. They worked in an atmosphere rendered clean by constant replacement.

Secondly, we went to the Research Department where there were demonstrations of the techniques used to control the size of crystals in suspensions prepared for injection.

Finally, we visited the select company of the experimental rats who, it seems, are the direct descendants of a pair brought over from America in 1922 for research in Vitamin D.

The visit was rounded off with an excellent tea. The helpfulness and hospitality of the company which made this visit possible were very much appreciated.

Correspondence

Bristol Guy's Club

SIR,—At a recent meeting of some Guy's men it was decided to form a Bristol Guy's Club. The Club will dine twice a year and wives will be invited to the Spring Dinner.

I shall try to circularise all Guy's men in and near Bristol before the end of March, but if any do not hear may I assure them that their omission is due to my incompetence as Secretary. If they will write to me I shall be very grateful.

Yours, etc.,

Department of Surgery,
Bristol Royal Infirmary,
Bristol, 2.

R. E. HORTON.

Musical Appreciation

SIR,—In your last issue, A. J. Salmon takes me to task for failing to notice the resources available to the Music Club for past concerts.

This point has not escaped my attention, though I felt it both unnecessary and unkind to incorporate it in my last letter. The Music Club has given us many admirable performances of works which have none the less made severe demands upon the artists concerned. Dr. Salmon himself draws our attention to a lack of instrumentalists in the performance of Fauré's *Requiem*. Why should an escape from Eighteenth Century compositions result in even greater musical complexities ? The statement that the formation of a small chamber orchestra automatically excludes the choice of works scored for a modern orchestra, is true. But has Dr. Salmon considered instead a modern composition scored for a small orchestra ? He must surely know that there are innumerable works available for almost every combination of strings and woodwind. I feel that he is unduly pessimistic in his search for new material.

The main point at issue seems to be the primary object of this body of musicians. Dr. Salmon would not agree that it is the entertainment of an audience. Surely the position is perfectly clear. If a body of musicians meets privately to study, say, Afro-Cuban rhythms or to perform the polyphonic motets of Lassus, it is entirely their own affair. Once, however, they publish a programme and invite an audience, they are immediately open to criticism by that audience both on their choice of music and upon their standard of performance. I am sure that it was never the intention of the Music Club to place their audiences in the position of eavesdroppers upon the efforts of a band of secluded musicians.

In conclusion, I cannot but ponder upon the questions in the final paragraph of Dr. Salmon's letter. Did he, in fact, mean to say : " Are the Bach Cantatas and Mozart piano concertoes considered safe for the patient audience ?" Did he mean to ask : " Does ' Gelobet sei der Herr ' of which only one set of parts exists in London, show the hallmark of a remote culture ? " With these alterations in the text, I would unhesitatingly answer " Yes " to both his questions.

Yours, etc.,

Guy's Hospital,
S.E.1.

"A"

Music Club

The Music Club Choir has now commenced rehearsals for it's next concert, to be held in May. Music includes works by Bach and Borodin. New members, particularly those wishing to join the soprano or alto sections, are invited to join the choir. Rehearsals are held every Monday evening at 5.15 p.m. in the Chapel (by kind permission of the Chaplain).

The Music Club has now obtained a very good gramophone, and recitals are held fortnightly in the Medical School at which all members and friends of the Hospital are welcome. Details of these recitals are posted regularly on the Music Club notice board in the Colonnade.

Hospital Information, etc.

NINETIES CLUB

Union of "Goblins" and "Contemporaries"

Owing to the sad death of E. B. Dowsett this Club no longer has an Honorary Secretary. Every effort will, however, be made to continue the Club and it is proposed to hold the Annual Dinner in the summer of this year when it is hoped that a new Honorary Secretary will be appointed. The usual notices of the Dinner will be sent out a month in advance to those members whose names are available.

Yours faithfully,

H. M. BERNCASTLE,
(*President*, 1951).

W. BERNARD SECRETAN
(*President-elect*, 1952).

GUY'S HOSPITAL REPORTS

1951. Vol. 100

PART 4

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PAPERS BY GUY'S MEN

Bishop, P. M. F., and another. Habitual Abortion. *Brit. med. J.*, 1952, i, 244.

Doubleday, F. N. A Short Biographical History of Guy's Hospital, 1725–1950. *Med. Ill.*, 1951, **5**, 510.

Hallpike, C. S., and another. Further Observations upon the Diagnosis of Deafness in Young Children. *Brit. med. J.*, 1952, i, 235.

Matthews, E. The Problem of Dental Caries. *Practitioner*, 1952, **168**, 147.

McKeown, Thomas, and others. Observations on all Births (23,970) in Birmingham, 1947. V. Birth Weight Related to Economic Circumstances of Parents. *Brit. J. soc. Med.*, 1951, **5**, 259.

Moynahan, E. J. Observations on the Effects of Anti-Histamine Drugs on the Reactions of the Skin Vessels to Carbaminoyl Choline. *Brit. J. Derm.*, 1952, **64**, 1.

Nightingale, A. The Use of Lead Shot for Protection from Gamma Radiation. *Brit. J. Radiol.*, 1951, **24**, 568.

Platt, H. Canine Chronic Nephritis.

1. Observations on the Pathology of the Kidney. *J. comp. Path.*, 1951, **61**, 140.
2. A Study of the Parathyroid Glands with Particular Reference to the "Rubber Jaw" Syndrome. *J. comp. Path.*, 1951, **61**, 188.
3. The Skeletal System in "Rubber Jaw". *J. comp. Path.*, 1951, **61**, 198.

Smith, P. A. J. The "L.E. Cell" and its Significance. *Brit. J. Derm.*, 1952, **64**, 10.

Robson, J. M., and Sharaf, A. A. Response of the Cat's Endometrium to Implantation of Different Steroids. *J. Physiol.*, 1951, **115**, 313.

Tulley, W. J. Some Aspects of the Study of Anatomy in Relation to Dentistry. *Brit. dent. J.*, 1952, **92**, 1.

Vulliamy, D. G., and another. Phenylketonuria with a Study of the Effect upon it of Glutamic Acid. *Arch. Dis. Childh.*, 1951, **26**, 487.

Wass, S. H. Chronic Infections of the Jaws in General Practice. *Practitioner*, 1952, **168**, 121.

West, R. Dyspnœa in Dock Workers Handling Grain and Seed. *Trans. Ass. industr. Med. Officers*, 1951, **1**, No. 3.

CHANGES OF ADDRESS

T. H. Hills, M.B., B.S., D.M.R.E., Church Hill House, Church Hill, Merstham, Surrey. Tel. : Merstham 2588.

Stanley C. J. Pink, B.D.S., Stratford House, Market Street, Ilkeston, Derby. Tel. : Ilkeston 16.

Leonard Sagorin, M.R.C.P.E., D.C.H., c/o 35, 11th Avenue, Highlands North, Johannesburg, S. Africa.

BIRTHS

GRUMMITT.—On December 14th, 1951, to Dorothy (née Howe), wife of M. W. J. Grummitt, M.B., B.S.—a son (Richard Michael).

NORELL.—On February 11th, 1952, at the Bearstead Memorial Hospital, London, N.16, to Brenda, wife of Jack Norell, Esq.—a son (Paul).

THOMAS.—On January 29th, 1952, at Old Court Nursing Home, Maidenhead, to Ann (née Doogan), wife of G. T. G. Thomas, M.R.C.S.—a sister for Richard and Geraldine.

MARRIAGE

WEBB—COVENTRY.—On January 26th, 1952, at the Congregational Church, Purley, R. A. J. Webb, M.R.C.S., L.R.C.P., to Celia Marjorie Coventry.

DEATHS

EDWARDS.—On January 13th, 1952, in hospital, peacefully, following an accident, Francis Henry Edwards, M.D., M.R.C.P., M.R.C.S., of Brightlands, Reigate, Surrey, the dearly loved husband of Eleanor Margaret and dear father of Ken, Peggie and Diana, on the eve of his 81st birthday. No letters please.

HICKS.—Suddenly, Charles Edward Hicks, M.R.C.S., L.R.C.P., Lond. 1900, of Huntingdon, in his 78th year.

EDS. { R.G. / P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

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PASSIM

EVEN before the introduction of the National Health Service there began that ventilation of hot air and, at times, generation of considerable heat on the subject of the general practitioner and his position in contemporary medicine. The last word has certainly not yet been said, and for this reason, if for no other, we venture to embark upon this contentious topic.

Let us first of all be assured that, despite appearances as viewed from the lofty sanctuary of the teaching hospital ward or even from the out-patient clinic, there is still a great and valuable service to be performed in seeing, advising, treating and, above all, playing a part in the healing of patients who come to their own doctors' surgeries or who are seen in their own homes. Why on earth the present-day general practitioner should become so conscious of his status that he must talk about establishing a college, academy or institution to preserve his rights we fail to understand. For he can, and should, without the aid of any extraneous sponsoring, do for his patients what no one else can ever afford them—consultants, specialists, scientists, public authorities, health visitors and priests notwithstanding. Eschewing to contribute any copiously referenced articles to the medical press on the cases that he encounters in the course of his rounds he nevertheless practises, probably without being altogether aware of it, that comprehensive medicine that embraces diagnosis—in which the superficial is distinguished from that disease which may have more serious consequences ; the natural history of disease—in so far as it is realised that certain conditions proceed along accepted and self-limiting courses requiring no more than symptomatic treatment ; social and industrial medicine—in that there is taken into account (even in such an irritating duty as signing a certificate) the impact of the home and the occupation on the patient's welfare ; psychiatry—to a greater or lesser extent in all patients and therapy—in its more rational sense.

The trouble is that so many of the faculties that the general practitioner is called upon to exercise are subject to no systematic teaching during the medical student's course ; hence they are accorded no official recognition. What is worse, the average student, dazzled by the (dare we say ?) meretricious glitter of the hospital and, particularly, the teaching hospital, fails entirely to realise the delights, the occasional disappointments, yet above all, the satisfactions that are peculiar to the ordinary doctor.

In two notable ways, however, is the general practitioner poorly served. Frequently, all too frequently, his relationship to the local hospital is little more than administrative. Secondly, in the field of therapy, he gets little opportunity for enlightenment on current progress, new discoveries and efficacy, other than by way of those plausibly presented leaflets, blotters and samples that pour through his letter box morning, noon and night, to be closely followed by the representatives of the various firms that importune in person. The suggestion that has been made for general practitioners to be appointed as part-time clinical assistants in their local hospitals is, we feel, both unfeasible and unrealistic. For they will then find themselves in a strange and somewhat artificial environment, of doubtful status and responsibility in an established hierarchy, spending much of their time doing very little when they could be achieving so much more in their own milieu. What we think is needed instead is, in the first place, a further fostering of social friendships between practitioners

and consultants, especially as this affects hospitals and the areas which they serve. Each would then get to know, evaluate and respect (or dismiss) the other as an individual of personal worth, and not merely as an almost undecipherable name on the bottom of a letter or report. Doctors, indeed, have a knack of "talking shop" and from their social gatherings professional discussions would naturally develop. The move would need to arise by personal initiative and never by bureaucratic order. And as the relationship grew, so the doctors outside would gain access to their local hospitals, not simply as a right under some statutory instrument, but out of friendship and regard for their colleagues on the staff. Patients, too, would then be referred, not to a certain type of clinic but to a named consultant. (A number of existing hospital procedures at present jealously guarded by some of the administrative officers might need to be modified in this event.) In time, moreover, patients might be referred deliberately from a hospital to their own doctor and not be allowed to drift back at some stage, vaguely diagnosed, virtually untreatable and no longer interesting from a teaching standpoint.

Coming into contact week by week with the methods of the hospital and, maybe, talking on occasion with research workers and specialists as well, the doctors outside would thus derive a new source of largely unprejudiced information and would readily absorb the current ideas on management and treatment. They would then, so fortified, apply a critical view to so many of the loudly proclaimed new drugs and innovations that are presented to them and in place of what is now so often an inevitable cynicism, would exercise instead a healthy scepticism that is their natural attitude.

March

ACADEMIC

		Exhibition. Surgical Department. "Varicose Veins."
10th	1.00.	Mr. Brock. Clinical Lecture. "Guy's Hospital Reports."
11th	1.00.	Dr. Evans. Clinical Lecture. "Multiple Congenital Defects."
12th	4.45.	Science Club. Mr. R. J. Stanford and Dr. J. Vance. "Radiation Doses to Patients During Diagnostic X-Ray Examinations." Staff Common Room. (Tea 4.30.)
	5.30.	York Clinic. Clinical Demonstration.
13th	5.00.	X-Ray Meeting. Gordon Museum.
	5.00.	Department of Surgery. Mr. Murray Falconer. Neurosurgical Demonstration. Clinical Theatre.
14th	1.00.	Dr. MacLean. Clinical Lecture. "The Diagnosis of Meningitis."
	2.15.	Department of Medicine. Combined Round. Preclinical Classroom.
15th	10.00.	Dr. Forman. Skin Demonstration. Preclinical Classroom.
17th	1.00.	Mr. Clarkson. Clinical Lecture. "Three Dimensional Repairs."
18th	1.00.	Sir Heneage Ogilvie. Clinical Lecture.
19th	5.00.	Department of Medicine. Lecture. Professor R. H. S. Thompson. "Some Aspects of Peripheral Neuropathy." New Pathology Classroom.
20th	1.00.	Mr. Eckhoff. Clinical Lecture.
	5.00.	X-Ray Meeting. Gordon Museum.
21st	1.00.	Dr. Kauntze. Clinical Lecture.
	2.15.	Department of Medicine. Combined Round. Preclinical Classroom.
22nd	10.00.	Department of Surgery. Clinico-Pathological Meeting. Clinical Theatre.

SPORT

15th	Rugby 1st XV *v.* Gloucester. (H.O.P.)
	ENGLAND *v.* SCOTLAND. (Murrayfield.)
	Rugby Extra "A" XV *v.* Old Westcliffians "A". (H.O.P.)
	Rugby Wanderers *v.* Kodak. (Harrow.)
	Rugby "B" XV *v.* Old Westcliffians "B". (Westcliff.)
22nd	Rugby 1st XV *v.* Old Paulines. (H.O.P.)
24th/29th	University of London Boxing Club *v.* French Universities. (Paris.)

Subscribers to the *Gazette* whose subscriptions are due (12*s.* 6*d.* per annum including post) are asked to send their subscription without an "office" reminder to The Manager, *Gazette* Office, Guy's Hospital, S.E.1. Also, if required, to apply for a copy of the 1951 Index, obtained free of charge, from The Wills Library or *Gazette* Office.

The Cardiovascular System in Endocrine Disease*

By E. J. WAYNE, M.D., F.R.C.P.

Professor of Pharmacology and Therapeutics, University of Sheffield; Physician, Sheffield Royal Infirmary

LADIES AND GENTLEMEN,—I have selected this subject chiefly because for several years I and members of my department have taken an interest in diseases both of the cardiovascular system and of the endocrine organs. In addition, however, disorders resulting from an interplay of these systems have a special advantage from the point of view of the investigator. For, whereas in dealing with diseases of the heart and blood vessels, it is sometimes difficult to distinguish between cause and effect, and statistical methods must often be used to assess the value of treatment, many endocrine diseases are readily reversible. Hence the patient may often be made to serve as his own control. We can also in most instances isolate some at least of the active principles of the gland under consideration and can study their effects on the cardiovascular systems of healthy persons.

I propose to discuss only two endocrine organs, namely the thyroid gland and the suprarenal capsules. I shall try to outline the present position of our knowledge of the cardiovascular phenomena which are associated with diseases of these glands and shall refer in particular to those aspects to which we in Sheffield have specially directed our attention.

Hyperthyroidism

Although clinical thyrotoxicosis is probably the result of an increased secretion of the thyrotropic hormone of the pituitary gland, the effects on the cardiovascular system are due to an excess of circulating thyroxine or some closely related substance. Thyroxine has profound effects on the dynamics of the circulation. The increase in tissue metabolism and oxygen consumption is met by an increase in the cardiac output. The stroke output is little if at all increased and it is the increased heart rate which is responsible for the greater minute volume of blood leaving the heart. A greater proportion of the blood than normal passes through the skin no doubt in an attempt to increase total heat loss. The circulation rate is increased.

TABLE 1.

Shows the circulation rate in normal individuals in cases of thyrotoxicosis, and in treated and untreated cases of myxœdema, as measured by the difference in time for fluorescein to reach the arm and the foot.

Fluorescein Circulation Times

		Arm-to-foot time minus Arm-to-arm time (secs.)
Normal range. .	.. ..	8–13
Thyrotoxicosis	.. ..	5
Myxœdema. (1)	Untreated	49
	After 1 mo. thyroid	13
(2)	Untreated	18
	After 2 mo. thyroid	10

We should, however, distinguish between thyrotoxicosis and thyrotoxic heart disease. While thyroxine in excess always has some effect on the heart this may, in the young person, be much less important than its other actions such as its effect on weight and on the eyes, and it may be completely reversible by suitable treatment. When, however, auricular fibrillation or congestive heart failure occur in a thyrotoxic patient they become more important than the purely metabolic effects of excess of thyroid hormone.

*Carbutt Memorial Lecture delivered in Guy's Hospital Medical School on 11th October, 1951

It is, however, still uncertain whether there is a specific type of heart disease caused by thyrotoxicosis or whether an excess of thyroxine acts merely as a precipitating factor in hearts already predisposed to failure from other causes. Both cases have been argued. Thus Friedberg (1950) is in favour of the view that a normal heart can tolerate thyroid excess well whereas Levine (1945) has produced cases suggesting that thyrotoxicosis may be the sole cause of heart failure even in young persons. It is, of course, clear that thyroxine has an adverse effect on the myocardium since many cases of auricular fibrillation revert to normal rhythm after the thyrotoxic element has been removed by either operation, thiouracil or radio-iodine. Thyroxine has, moreover, been shown to be capable of producing fibrillation in human beings and in isolated pieces of chick embryo heart. (Markowitz and Yater, 1932.) Nevertheless, the rarity with which auricular fibrillation and congestive failure occur in the young even when exposed to severe thyrotoxicosis is evidence that as a rule two factors are involved. Failure is indeed only seen in the young when the heart is affected by rheumatic endocarditis ; in older subjects hypertension and coronary atherosclerosis are the usual predisposing diseases.

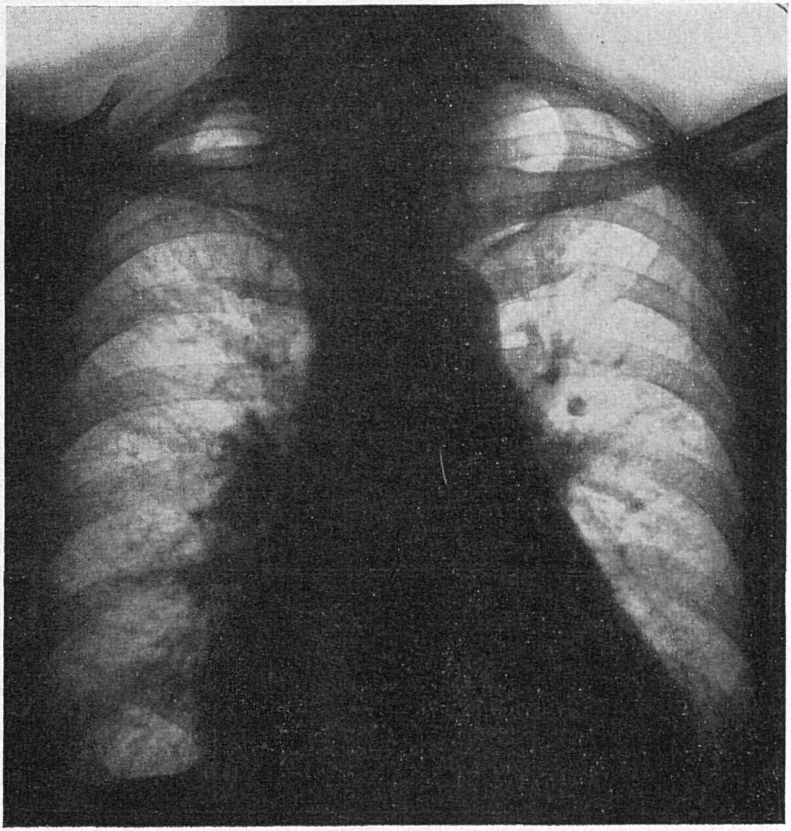

Fig. 1. The configuration of the " ham shaped " heart which is seen in some cases of thyrotoxicosis.

There has also been considerable variation in opinion about the frequency with which *cardiac enlargement* occurs in thyrotoxicosis and even about the presence or absence of characteristic changes in the cardiac contour. Thus, Parkinson and Cookson (1931) found that 45% of 130 cases showed cardiac enlargement, not usually great, and described a characteristic shape. The

pulmonary arc is prominent and the left ventricle enlarged, giving a straight left border and the right auricle is slightly enlarged, giving a " ham " shaped appearance. Fig. 1 illustrates this in one of our own cases. The aortic knuckle is prominent. The left auricle is not enlarged out of proportion to the other chambers. Other observers, e.g., Evans (1949) and Levine (1945) record cases with striking left auricular enlargement simulating that found in mitral stenosis. Gotta (1938), on the other hand, could find no radiological changes which could not be explained by associated cardiovascular disease. We have screened nearly all our cases of thyrotoxicosis and have attempted to assess the effect of treatment on heart size. We would agree that the pulmonary arc is usually prominent but we cannot define a characteristic radiological picture nor confidently state that treatment of the thyrotoxicosis will alter the cardiac silhouette, although occasionally it may do so in a striking fashion.

When *congestive failure* occurs as the result of thyrotoxicosis one would expect it to be of " high output " type since it is the peripheral demand for more oxygen which is the determining factor and the hands and feet often remain warm even in the presence of venous congestion. McMichael and Sharpey-Schafer (1944) found in a small series of cases that though this is the case in the early stages, the output is usually low in severe failure. Digoxin, moreover, can give a striking fall in venous pressure and rise in cardiac output. We attempted to confirm the effect of digitalis and agree that the venous pressure falls. On one occasion a patient in severe failure with auricular fibrillation died shortly after digoxin had been given intravenously. We felt that this might have been due to ventricular fibrillation from the combined effect of digoxin and thyroxine. Digitalis is known to be capable of causing this arrhythmia and thyroxine may cause auricular fibrillation in man and diffuse fibrillation in the chick embryo heart. Dr. Derek Wood and I therefore administered thyroxine in full doses to five cats for 14–18 days causing considerable loss of weight. We compared the intravenous toxicity of digoxin in these animals with the effects in 13 normal cats. There was no statistically significant difference in the average lethal dose in the two series.

Clinical examination of the heart in a thyrotoxic patient may often give rise to the suspicion that mitral stenosis is present. The loud and split first sound at the apex often simulates that heard in mitral stenosis and when accompanied by a systolic murmur and in the presence of auricular fibrillation, the distinction may indeed be difficult. Wood (1950) states that a functional mitral diastolic murmur may occur. Mitral stenosis, moreover, seems to occure more frequently in association with thyrotoxicosis than one would expect. It is in such cases and cases with congestive failure that we have found tracer tests with radioactive iodine most helpful (Goodwin, Macgregor, Miller and Wayne, 1951). We now use a simplified test which can, if necessary, be carried out without admission to the ward. The uptake of radio-iodine by the gland at four hours and the protein-bound radio-iodine at 48 hours are estimated. Table 2 shows typical figures and their value in doubtful cases. It will be realised that the estimation of the B.M.R. is of no value in cases with heart failure.

In the *treatment* of the thyrotoxic heart, i.e., of the patient with congestive failure or uncontrolled auricular fibrillation, we now for choice use radio-iodine. These patients are of a suitable age group and are poor operative risks—Hurxtal (1940) found an eightfold greater mortality than in uncomplicated thyrotoxic patients. This was, however, before the antithyroid drugs were used to improve the pre-operative condition of thyrotoxic patients. Mr. Clifford Jones, who performs most of the thyroidectomies on my patients, has lost no case in the last 250 operations which he has carried out. He agrees that this is, in part at least, due to the fact that we have relieved him of the poor risk patients, many of whom had heart disease. We now use methyl thiouracil very rarely in these cases ; it has the merit of giving a quicker effect than radio-iodine but has little else to commend it.

TABLE 2.

Shows the value of the additional evidence which can be gained from the radio-iodine criteria in cases suspected to be suffering from thyrotoxic heart disease.

Sex	Age	Clinical features	I^{131} gland uptake (4 hours)	Protein-bound plasma activity (48 hours)	Diagnosis
M	48	Auricular fibrillation Goitre	14	negligible	Degenerative a.f.
F	39	Paroxysmal auricular fibrillation Mitral stenosis	25	negligible	Mitral stenosis
F	60	Auricular fibrillation Loss of weight	69	1·1% litre	Thyrotoxicosis
F	49	Auricular fibrillation Congestive cardiac failure Adenoma of thyroid	47	0·7% litre	Toxic adenoma Mitral stenosis
		Normal limits :	Below 40%	Below 0·4% litre	

Hypothyroidism

In this condition the cardiovascular system is also affected. The overall picture is the reverse of that seen in hyperthyroidism. I wish, however, to deal with only one or two aspects.

The first article in this country to draw attention to the myxœdema heart was published in *Guy's Hospital Reports* by Drs. Campbell and Suzman (1934) and comparatively little of clinical interest has been added to their account in the intervening 17 years.

The metabolic rate in myxœdema is low and the circulation rate much less than normal. Dr. Macgregor and I (1951) use fluorescein as the circulating indicator in this type of investigation, injecting it into a vein at the elbow and examining for its fluorescence by ultraviolet light in small histamine wheals at the wrist and ankle. Table 1 shows some results.

The reduced peripheral blood flow gives a reduced venous return and the cardiac output may be reduced by as much as 40%. The arteriovenous oxygen consumption is, however, increased because of a greater oxygen utilisation by the tissues. The extremities are cold and there is a reduced blood supply to the skin even in warm surroundings. There is thus a deviation of blood to the viscera. The cardiac output and work of the heart are reduced to a greater extent than the oxygen consumption and the efficiency of the heart is increased in the sense that less work is done for a given amount of bodily metabolism. Thus, Briard *et al* (1935) found that 19% less energy was utilised by a myxœdematous patient in walking than by normal subjects. These facts no doubt explain why the production of artificial myxœdema is of value in angina and congestive failure, a subject with which I wish to deal in a moment.

In myxœdema the heart is often enlarged and the beat on X-ray examination is feeble. The orthodiagram (Fig. 2) is from Campbell and Suzman's paper. Pericardial effusions are common. The E.C.G. shows characteristic changes which are of value in diagnosis and in assessing the effects of therapy. They consist of low voltage P and QRS complexes and flat or inverted T waves with a prolonged QT interval.

Angina Pectoris and Thyroid Disease

Angina pectoris may occur in association with disease of the thyroid gland. Thus in hyperthyroidism it may occur in persons with coronary atherosclerosis because of the increased oxygen requirements of a myocardium already deficient

in blood supply. Of our last 100 cases three have experienced angina and in all it has disappeared after treatment. Angina pectoris may also occur in myxœdema probably because the persistently raised blood cholesterol accelerates the development of coronary atherosclerosis. In such cases thyroid treatment must be given with the greatest care. I have seen two cases in which myocardial infarction occurred after thyroxine had been given, and I am now convinced it would have been better to have left the myxœdema untreated.

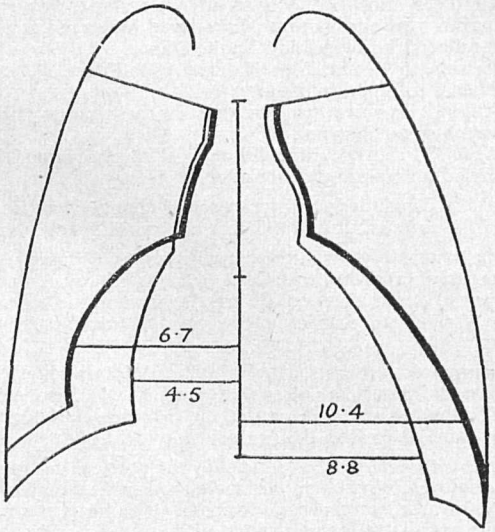

Fig. 2. Orthodiagrams illustrating the reduction in the size of the heart by thyroid treatment in a case of myxœdema. (From Campbell and Suzman, 1934.)

The intentional production of myxœdema in severe angina occurring in euthyroid individuals may be a valuable therapeutic procedure. Originally this was done by total thyroidectomy—a dangerous procedure in our experience and later some cases benefited by the administration of methyl thiouracil. We now use radio-iodine and we believe that this is the most satisfactory method of reducing thyroid activity. As with thiouracil, much larger doses must be used than those required in thyrotoxicosis but the results are more certain and there are fewer side effects. Blumgart and his co-workers (1950) reduced or abolished angina in 11 of 17 patients by radio-iodine treatment.

In one of our cases before treatment with radio-iodine the patient developed angina after 20 " efforts " in a standard two step exercise, and after treatment he was able to make 200 " efforts " without pain.

It will be seen then that we have in hyper- and hypothyroidism two states each of which can be reversed by appropriate treatment. As a result it has been possible to study the effects on the circulatory system in much greater detail than is possible in diseases where irreversible damage has been done to the heart, such as mitral stenosis, a condition which can only be partially relieved and then only at certain hospitals such as Guy's.

The Suprarenal Gland

The cortex of the suprarenal gland produces a number of hormones of which one, cortisone, has recently become available for study. Excess of this hormone is responsible for some of the phenomena seen in Cushing's syndrome ; it is deficient in Addison's disease. The medulla which produces both adrenaline and nor-adrenaline is not essential for life but excessive production of these substances may occur if the tumour phæochromocytoma develops and may be responsible for paroxysmal or even permanent hypertension.

The effects of *cortisone* on the cardiovascular system have not yet been fully studied but I am able to present the results of some preliminary work carried out by Dr. Graham Wilson in my department. To study " normal " individuals, cases under treatment for conditions of the eye have been used and cortisone has consequently been given in full therapeutic doses. The results may be summarised as follows :—

(i) There was an increase in circulating blood volume in most cases.
(ii) In all cases showing such an increase there was an increase in maximum heat elimination of the hand measured at full dilatation. This reflects the blood flow to the skin.
(iii) There was no change in the forearm blood flow.
(iv) The heart enlarged in some cases.
(v) The blood pressure did not alter in these cases although this is known to occur in some.
(vi) The E.C.G. did not alter although this can occur. In this series the blood potassium did not alter.

It is provisionally concluded that the essential change is an increased blood volume available for redistribution, and that the other changes are secondary.

It is probable that similar readjustments occur in *Cushing's syndrome* but since, in this disease, in addition to excess of cortisone (or compound F), salt retaining hormones of deoxycortone type are also present in increased amounts, the changes are greater so that hypertension and cardiac enlargement are constant features.

In active rheumatoid arthritis all the affected joints show an increased blood flow whereas the skin flow is less than normal. Cortisone decreases the total flow in the limbs because it decreases the inflammation but the skin flow is increased in the same way as in the normal individual but to a greater extent.

In *Addison's disease* there is a deficiency of cortical hormones such as cortisone and the salt retaining hormones which resemble deoxycortone in their effects ; hypotension is a characteristic feature. The heart is small and beats feebly. Cortisone has the following effects.:—

(i) It causes a large increase in blood volume.
(ii) The heart size increases.
(iii) The cardiac output, which is low in relapse, rises, e.g., from 3·5 to 7·1 litres in one patient studied.
(iv) The forearm blood flow increases.
(v) There is an increase in skin flow as judged by the maximum heat elimination of the hand.
(vi) The blood pressure rises.

TABLE 3.

Shows the cardiovascular findings in a case of Addison's disease before and during cortisone treatment.

G.P. AGE 47 YEARS. ADDISON'S DISEASE FOR 5 YEARS.

	Before treatment	After cortisone 25 mg. day for one month
Mean pulse rate	80	84
Blood pressure	90/70	135/85
Cardiac output	3·6 l./min.	7·1 l./min.
Forearm blood flow	2·0 ml./min./100 ml.	4·1 ml./min./100 ml.
Maximal heat elimination of hand	123 cal./min./100 ml.	154 cal./min./100 ml.

Dexoycortone also causes an increase in the blood pressure and size of the heart and in excess may produce peripheral œdema and increased venous pressure. It should be remembered, however, that it is not a substance which occurs naturally in the suprarenal cortex and these findings are of less physiological significance.

The actions of deoxycortone and cortisone on the heart are, in fact, different and a study of their effect on the *electrocardiogram in Addison's disease*, shows this.

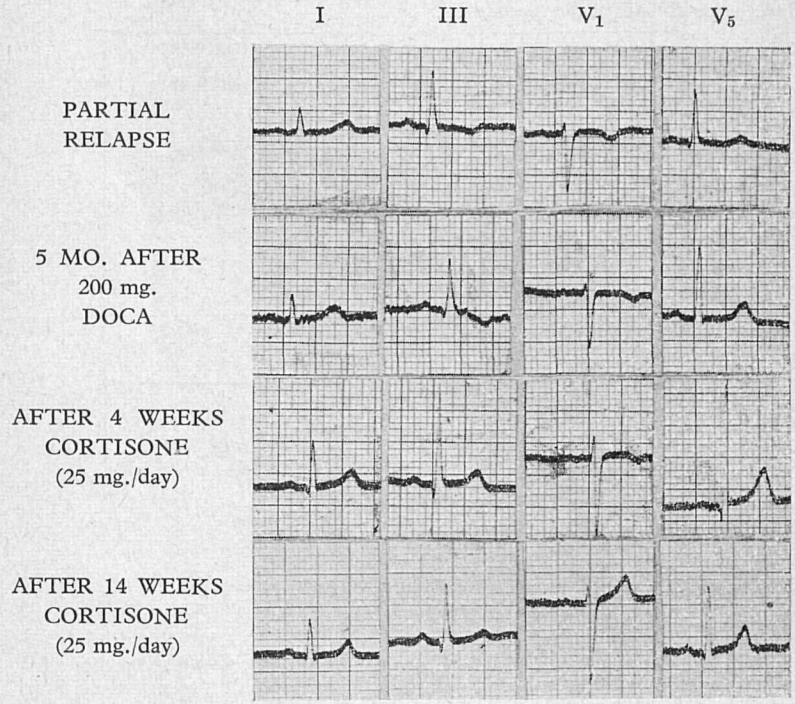

Fig. 3. Electrocardiograms from a case of Addison's disease before and after cortisone and deoxycortone administration.

Some years ago Evans (1949) stated that although the electrocardiogram in Addison's disease may be normal, it usually shows inverted T waves in leads I and CR_7. After the administration of deoxycortone T wave inversion occurs in leads II, III and CR_1. He thought that during therapy an attempt should be made to cause a reversion to normal and that the electrocardiogram could be used as a guide to correct dosage. Dr. Macgregor and I have studied our cases from this point of view and have not been able to confirm these findings. Our results are, indeed, identical with those recently reported from a study of a much larger series of cases by Somerville, Levine and Thorn (1951).

In Addison's disease the curves are normal in almost half the cases. The chief changes are, in order of frequency, flat or inverted T waves, prolonged QT interval, low voltage, prolonged PR and QRS intervals and depressed ST segments. Deoxycortone may cause no change, or a decrease or an increase in the abnormalities. Cortisone, on the other hand, almost always diminishes the abnormality. This is well shown in the representative electrocardiogram shown in Fig. 3.

The electrocardiograms taken while the patient was receiving cortisone show a reduction in the PR interval, an increase in the amplitude of the R wave (larger after the shorter than the longer period of treatment), a striking increase in the amplitude of the T waves, a reduction in the QT ratio and a

smaller duration of the QRS complex. Deoxycortone treatment also increased the amplitude of the T wave in some leads and diminished the voltage of the Q deflection but had no effect on the other criteria. A study of other cases gave similar results.

These changes in the electrocardiogram in Addison's disease are probably due to several factors, e.g., to deficiency in the carbohydrate regulating factors and to disturbances of intra- and extracellular fluid and of electrolyte balances. We have some evidence from radiosodium studies that the latter may occur but the results are as yet incomplete.

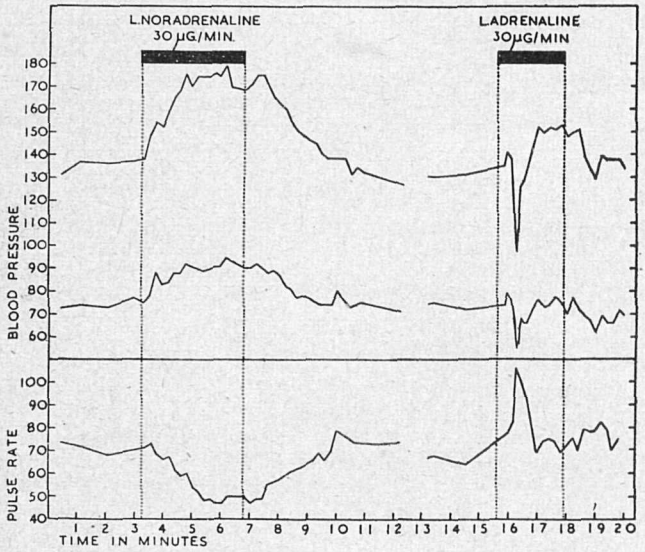

Fig. 4. The effect of nor-adrenaline and adrenaline on pulse rate and blood pressure of the human subject, calculated at 15 sec. intervals from continuous intra-arterial tracings. (Barnett et al., 1950.)

The tumour *phæochromocytoma* produces substances which profoundly affect the cardiovascular system. In man, extracts of the suprarenal medulla contain more *l*-adrenaline than *l*-nor-adrenaline. Tumours of the medulla, however, may contain 30 times as much nor-adrenaline as adrenaline and the absolute amounts are also greatly increased. These two substances differ in their cardiovascular actions. Fig. 4 illustrates the effects of these substances when slowly infused into normal human subjects (Barnett, Blacket, Depoorter, Sanderson and Wilson, 1950). Nor-adrenaline produces an immediate rise in blood pressure with a reflex slowing of the heart and a reduced peripheral blood flow. The cardiac output falls. Adrenaline, by contrast, gives an initial fall in blood pressure with a rise in heart rate and an increase in forearm flow and a rise in cardiac output. The slowing of the heart is a reflex from the carotid sinus. Not only can much more nor-adrenaline than adrenaline be isolated from the tumour in phæochromocytoma but in an observed attack of acute paroxysmal hypertension, the circulatory changes were identical with those produced by the former substance in normal persons. (Fig. 5.)

It should perhaps be added that the changes seen in the circulation in essential hypertension are not like those produced by nor-adrenaline and it is unlikely, as was at first thought, that this substance plays a major role in its pathogenesis.

Nevertheless, it is possible that the suprarenal glands may play a role in the genesis of essential hypertension by disturbing the pituitary-adrenal mechanism. The cortical hormones are known to produce hypertension when given in excess and experimental hypertension in animals is relieved if the suprarenal glands are removed. Recently attempts have been made in the U.S.A. to treat hypertension in humans by adrenalectomy, the patient then being given replace-

ment cortisone therapy. This is indeed drastic treatment but perhaps not more so than total sympathectomy. The fate of this therapeutic procedure should be worth watching.

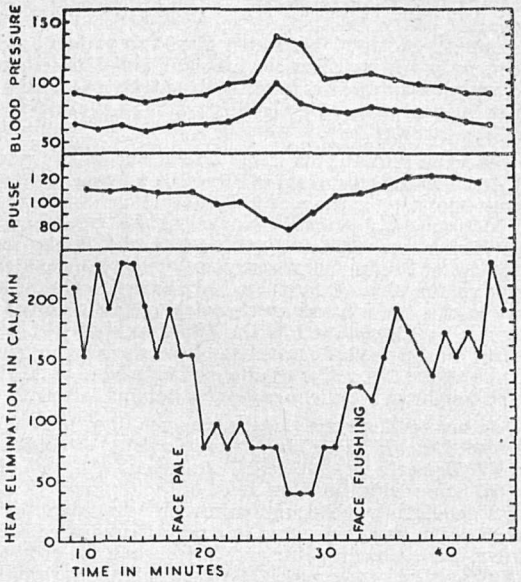

Fig. 5. Circulatory changes observed during a paroxysmal attack of hypertension. (Barnett et al., 1950.)

These, then, are some of the ways in which recently acquired techniques and information derived from many specialised fields have contributed to our knowledge of the effects of hormones on the cardiovascular system both in health and disease. Much of this knowledge is still imperfect. Already, however, it has enabled us to make diagnoses more accurately and the treatment of many diseases will be profoundly affected by further knowledge which is already rapidly accumulating.

ACKNOWLEDGMENTS

The unpublished observations referred to in this paper have been carried out by, or in collaboration with Dr. A. G. Macgregor, Dr. Graham Wilson and Dr. Derek Wood.

Thanks are expressed to the authors and editors concerned for permission to reprint Fig. 2 (*Guy's Hospital Reports*) and Figs. 4 and 5 (*Clinical Science*).

REFERENCES

Barnett, A. J., Blacket, R. E., Depoorter, A. E., Sanderson, P. H. and Wilson, G. M. (1950), *Clin. Sci.*, **9**, 151.
Blumgart, H. L., Freedberg, A. S. and Kurland, G. S. (1950), *Circulation*, **1**, 1105.
Briard, S. P., McClintock, and Baldridge, C. W. (1935), *Arch. int. med.*, **56**, 30.
Campbell, M. and Suzman, S. S. (1934), *Guy's Hosp. Rep.*, **84**, 281.
Evans, W. (1949), *Proc. R. Soc. Med.*, **42**, 331.
Friedberg, C. K. (1950), *Diseases of the Heart*, Philadelphia and London, W. B. Saunders & Co.
Goodwin, J. F., Macgregor, A. G., Miller, H. and Wayne, E. J. (1951), *Quart. J. Med.*, **20**, 353.
Gotta, H. (1938), *Arch. intern. Med.*, **61**, 860.
Hurxtal, L. M. (1940), "The Thyrocardiac" in *Frank Howard Lahey Birthday Volume*, Springfield, Ill., C. C. Thomas, quoted by Friedberg.
Levine, S. A. (1945), *Clinical Heart Disease*, 3rd ed., Philadelphia and London, W. B. Saunders & Co.
Macgregor, A. G. and Wayne, E. J. (1951), *Brit. Heart J.*, **13**, 80.
McMichael, J. and Sharpey-Schafer, E. P. (1944), *Quart. J. Med.*, **13**, 123.
Markowitz, C. and Yater, W. M. (1932), *Amer. J. Physiol.*, **100**, 162.
Parkinson, J. and Cookson, H. F. (1931), *Quart. J. Med.*, **24**, 499.
Somerville, W., Levine, H. D. and Thorn, G. W. (1951), *Medicine*, **30**, 43.
Wood, P. H. (1950), *Diseases of the Heart and Circulation*, London, Eyre & Spottiswoode.

The Residents' Play, 1952

FOR a week the Physiology Theatre has played to packed houses, chuckled with them, rocked in helpless laughter and reverberated to thunderous applause for yet another encore as the Residents put across their play—this year a witty satirical review by Geoffrey Hammond entitled, " The Folly of Man or the Midwives' Tale ".

This year has been vintage, for it has added two classic portraits to the gallery of Guy's men whose greatness has been sealed by the favour of attentions by the Residents—portraits worthy of inclusion with the figures of Blaikley's " Old Nick ", McConnell's " Hurst ", James' " Piffle ", Falconer's " Gibby " and the famous Bishop and Southwell partnership of " Bobby and Philip "—with Wheeler's " Sister Bright " in attendance. This time too it was a partnership, a stroke of genius which threw together two classical scholars—eclectics whose existence in this age is a sad anachronism of fate—Vertue, played with delicious bonhomie by Russell, and Willie Mann, relived with artistic licence by Rees. These two are naturally translated from the rough realities of Guy's to the classic calm of the ruins of the temple of Aphrodite on the isle of Nisos, and it was sheer delight to see them enjoy this natural habitat.

As if this were not good measure for the year, the Play threw up no less than four subsidiary portraits of well above average quality—a four-square obstetrician " Jibberd " (Baird), a likeable little dermatologist, " Dr. Folly " (Zorab), a sinister surgical figure with the exact voice of the master " Deadly Ratkins " (Kendall), and a delightfully diffident anæsthetist " Dr. McSoneryl " (Bailey). These four stood out in good company, in a play the script of which was good enough in parts to raise a laugh a line and tidy enough for everyone to follow, whose lyrics (by Pat Montgomery and Geoffrey Hammond) rose thrice to great heights, and whose music (by Michael Vickers and Geoffrey Baker) provided a pleasant and unobtrusive vehicle constructed with a charm and simplicity worth a separate hearing. But it is by the artistry and delicious wit of two scholars, the virtue of " Hurtyou " and the Will of " Sham ", that this year will be remembered.

The play opens on the Isle of Nisos, where the Muktar (Bradbeer), supported by an oriental type (Palmer) and a sinuous dancing girl Fifi (Baker), awaits the arrival of visiting specialists Jibberd (Baird), MacFlair (Gazet) and McSoneryl (Bailey), summoned during a tour of inspecion of Middle East Universities to attend to a Muktar emergency. They bemoan the Fate of Man :—

Ah, Ah, Ah, ...

How nice it is on Nisos Isle,
To live in oriental style,
We hope our play will make you smile,
Folly is the Fate of Man.

Ah, Ah, Ah, ...

Our Island's full of ancient things,
Of temples, gold and ruby rings,
But wealth corrupts and death it brings,
Folly is the Fate of Man.

Ah, Ah, Ah, ...

But in this tale of joy and woe,
It's circumstance that strikes the blow,
But we believe that you should know,
Folly is the Fate of Man.

On his arrival MacFlair, sparing a word here and there when absolutely essential, handles the matter with his usual dexterity—and a minimum of verbiage, whilst Jibberd argues convincingly that " if she's alive she'll either get better, get worse or stay as she is—and if she stays as she is, she'll be alive

and so long as she's alive, well, she's not dead "—so the Muktar realises he's in the best obstetric hands. Whilst McSoneryl juggles with a piece of traditional machinery, delivering the dope by proxy off stage, he whiles away the time reminiscing as follows :—

My heart is æsthetic my manner poetic,
I give quite the best anæsthetic I know,
And I find in the course of my peripatetics,
At pathetic emetics, splenetic I grow.

There's nothing easier than Anæsthesia,
When you practise in Mayfair,
There's nothing easier than Anæsthesia
When you've got your chauffeur there.
For there I sit in my old green gown,
With the chin well up and the tube well down,
And the only sound my soul to salve,
Is the whistle and hiss of the exit valve.

Psss — ssss ; Psss — sss — Psss.

Jibberd's liking for plenty of GUM is attended to by the peasantry and a son for the Muktar is extracted by the MacFlair " fish-hook and spanner ". The result is the mainspring of the play, for the Muktar, overcome with joy at his oriental good fortune, presents the distinguished visitors with an ancient manuscript relating to the Persian Wars.

We return to Guy's to find Shirty the Superintendent (Butcher) convening a sub-committee for the re-building of the Hospital. Dr. Folly (Zorab), Willie Sham (Rees), Deadly Ratkins (Kendall) and Jibberd are first fortified by a glass of the " strong South African influence at Guy's " and then lose no time in getting embroiled in a scheme to assist the Works Department by voluntary Staff labour. Shirty is obviously qualified for the plumbing, Sham is remembered as an artist of no mean merit and Ratkins promises to be represented by his Asst. Director, Deputy Asst. Director, Registrar and other members of the staff of the Surgical Department should occasion for work arise. Folly sees better occasion to soliloquise in one of the most charming and witty little songs we have ever heard at a Residents' Play :—

Skin diseases sooth the senses
With their classical pretensions
We forget about the tenses
But remember the declensions
As we settle our dissensions
By deploring the offences
Of Primula obconica
And Primula sinensis.

There's a Lilliputian wail from a tiny silver scale
And the skin shines bright in the sun.
Calling Folly, Dr. Folly, can't you quit your melancholy
There's some scrutiny and scratching to be done.
There's a whisper so forlorn from a little plug of horn
As it peeps from its patulous pore,
Saying squeeze me, Folly, squeeze me,
From my prison can't you ease me
Please don't tease me for my follicle is sore.

Forget your dream of a cosmic scheme
Where logic and life are simple.
Oh Folly be firm ! Be a philoderm,
And lavish your love on a pimple.

There's a whimper of despair from a little wisp of hair
As it lies so lank on the skull,
Crying whirl me, Folly, twirl me, round your little finger furl me,
Won't you curl me for my life is very dull.
There's a scream of pure delight
From a matey little mite
As it tortuously tunnels in the skin,
Singing furrow, Folly, furrow,
Come and join me in my burrow
And we'll view the epidermis from within.

A nautical surgeon Sir Verbiage Rogilvie (Davies) lends a hand, but Shirty suddenly brings this happy working party to a shambles by announcing casually that he regrets there will now be no money for the New Guy's. Pandemonium ensues, during which little Folly gets impacted in the window frame—and has to be delivered by Jibberd with, of course, the appropriate neonatal attentions.

Fortunately Jibberd, as ever, is dead calm and he remembers the Muktar's gift of MS. Guy's was built on a South Sea Bubble so why not rebuilt on Persian loot? The scholarly Sham recognises in the MS. a rich alternative fund, and it is consigned to the safe in the Super's Office : the party breaks up in a friendlier mood. But Deadly Ratkins, the villain,

" A dexterous sort of a surgeon
With a sinister intent,
Led by sinister intentions to burglary,
For his easy manner covers
A dæmoniac discontent
That others do not sympathise with surgery ",

is determined to have the monies for his Department and returns to set a fuse and blow the safe. He is disturbed by as cool a pair of Guy's lovers as ever stepped out of the wings for a cosy chat in the Super's Office, and has to hide leaving the hero to be discovered red-handed by Shirty when that almighty bang that distinguishes all post-blitz plays blows the safe to smithereens. The MS. has, to everyone's astonishment, already vanished, and Shirty is only satisfied with the hero's protestations of innocence when he is reminded that he was a First XV stalwart : they overcome their nervous exhaustion with a drop more of the South African stuff. Our hero, Frank Breech (Goodfellow) and his attractive " strings " Marie Wana (vans Agnew) take the matter with fair nonchalance.

At this point the play suddenly became great for Sham. Until then just another averagely good figure of fun, he is in the next scene outside Victoria, joined by Hurtyou, our dear old Vertue to the life, heartily affable scholar of wit and learning, dispensing Edwardian courtesies and Latin tags on the one hand whilst pouring out goodwill with the other—a delicious satire in the best traditions of " the play "— hearty laugh and all. Russell extracts the last drop of fun in a character sketch which brings the house down and holds up the play whilst we pull ourselves together. Here, we suddenly realise, is another great occasion, for here is our beloved sage, voice, figure, gesture, laugh, come to fill the stage with a pentametric patter and Socratic song—and more, to partner Willie, until then a lonely scholar frustrated by the coldly purposeful Ratkins. The play is made, for Geoffrey Hammond and Pat Montgomery have the words and the lyrics and the audience can only clamour for more. Another great trio, comparable with the famous " Afternoon Tea in Bright, Dear " is born, set to strains which, if not in the Ive or de Gruchy vein, bear no mean comparison—at least sustain this scholarly soliloquy with charm and individuality : attractive freckled Sister Farmer (Stoker) sets the foil, and we are aware of more —they can all sing :—

HURTYOU I'm amusing a muse
SISTER F. But she seems rather bored
HURTYOU With my verse and my views
I'm amusing a muse.
SHAM She persists in refusing
The love he's implored
HURTYOU I'm amusing a muse
SISTER F. But she's still rather bored.

HURTYOU What's the use of Zeus,
Who's something stupider than Jupiter
Apollo couldn't follow
My pentameter's so free.
The fervour of Minerva
Or the you-know-what of Juno
Couldn't nerve her for the verve of Daddy V.

SHAM I'm a martyr to Art
HURTYOU He's a clinical sage
SHAM Mine's a tragical part
I'm a martyr to Art.
SISTER F. How I wish he'd depart
To a classical age.
SHAM I'm a martyr to Art
HURTYOU He's a clinical sage.

SHAM I'm not as dull as Gull,
And only half as mad as Addison,
And Golding Bird had never heard
How erudite I am.
Bright was quite as right
As was Hippocrates and Socrates,
But never quite as bright as Willie Sham.

SISTER F. I'm a sister of bliss
SHAM She's a dairy milk maid.
SISTER F. I don't want to do this
I'm a sister of bliss.
HURTYOU It's the way she expresses
Her medical aid.
SISTER F. I'm a sister of bliss
SHAM She's a dairy milk maid.

SISTER F. We're not allowing Cow
And Gate, and Trufood's such a rude food,
And we've wrestled with our Nestlés
'Til MacKeith is on his knees.
Things are getting slack so
We have put the brats on Glaxo,
And we'll trounce the little bouncers as we please.

When Hurtyou lets his hair down to caper to the fervour of Minerva we are treated to that most delicious of all assaults on the common senses—the sight of one of our senior staff, his face lit with the Devil's grin, indulging himself in a bit of boogie.

Sister Wasborn Stiff (Gilbert), an excellent vignette of whom we could have seen more, is persuaded to recite a little " Lewis Carol " poem which ran :—

" 'Twas Jibberd and the shakely coves
Did Hysterectom of the wome,
All Hegar were the cystic oves
And the fibroids myome."

and Hurtyou is delighted at this exhibition of Sisterly learning. He waves an airy farewell with an appropriate " Labor est etiam ipsa voluptas " and leaves with Willie Sham for the Grecian plains : the scholars are determined to foil the mundane manual workers from the Surgical Department.

Action is, at this point, enlivened by an item that will, we hope, never be omitted from the Residents' theatricals—some comic patients' patter and a dash of the music hall—this time some free-style obstetric exercises by three utterly broken Victoria addicts (Amos, Smith and Davidson—made up with genius) under the stentorian command of a Physio (Rolls). We are on our toes now, for this, too, is tradition, and nearly as good as the coloured Alabaman Scott's antics in York Clinic, still so fresh in our memories.

It soon becomes apparent that Deadly Ratkins and Verbiage Rogilvie plan to exploit the MS. during their coming Mediterranean cruise. Ratkins forgets his " tangle of ganglia to mangle ", his " new fangled angle on pain ", in his Satanic determination to have that Persian loot for the Surgical Department, and dear old Rogilvie gets rather swept around in this devilish whirlwind. The atmosphere is growing a little tense, so Sister Tottie Tiff, whom we seem to have seen dispensing tea in Theatre Land before, gives us a divertimento :—

The take-in firm in Theatre One
They fight for life and limb,
And Lawrie sometimes wanders out
And sometimes wanders in.
If he would stop apologising
I might say to him,
Come upstairs and have a cup of coffee.

The dear boy Guy in Theatre Two
He plays a splendid game,
But what runs in and what runs out
Is never quite the same.
He hoped by a cystoscopy
To find the splenic vein.
Come upstairs and have a cup of coffee.

The graceful Nils in Theatre Three
Plays on a perfect field,
Where every shot is so precise
And every stroke revealed.
He bunkered in the cystic duct
And found a stone concealed,
Come upstairs and have a cup of coffee.

We go next door to Theatre Four
The tension's running high,
The Og has cut the mitral valve,
He's done it on the sly,
And as the heart beats slowly fade
Brock only heaves a sigh,
Come upstairs and have a cup of coffee.

Two funny men in Theatre Five
Discuss an awkward case,
J.B. declares it isn't there,
And Cook it's out of place,
But Lewis he agrees with both,
Diplomacy first place.
Come upstairs and have a cup of coffee.

To be successful in my work
I've had to learn to chat,
To laugh and smile at anything
To talk of this and that,
But when I'm fed up with the lot
I go home to my cat, for
I love Coco more than I love coffee.

Rogilvie, Ratkins and that ravishing figure Marie Wana, now a distractingly shapely sweater girl, have evidently been occupying their time getting the " Thomas Guy " under way out of Burnham, for we now find them in the Mediterranean in brilliant sun—Rogilvie in slacks, Deadly in superb Supreme Commander's uniform, full five, nay six, stripes, making their way to a rollicking sea dogs' shanty rowly-bowly down wind :—

When I sailed up the Spanish creek
I had a famous crew,
And every man aboard my ship
Was dearly known to you.
So here's three cheers for the sea salt breeze
And here's three cheers for the grog.
We'll sail the seas as much as we please
With a Rogilvie Ogilvie og, my boys,
With a Rogilvie Ogilvie og.

Now Stafford Clark has taken up
Marine Psychology
For a mermaid's mind's mysterious
And a siren's soul is free.
In the drink she sinks with aplomb and a plonk
Festooned in a Freudian fog,
Old Neptune's conk's had many a bonk
With a Rogilvie Ogilvie og, my boys,
With a Rogilvie Ogilvie og.

Kilpatrick was the bo'sun's mate
Who sang a song with glee
Upon a lithotribe he played
With a bicoudé bougie.
We've failed to bail and we've pumped in vain
When the pipes of the bilges clog,
But he's done it again with a tidal drain
And a Rogilvie Ogilvie og, my boys,
With a Rogilvie Ogilvie og.

Now Gibberd, if we chance to meet
A privateer so bold,
Will force her to deliver up
The treasure from her hold.
He'll haul the skull and cross bones down
With a hand like the haunch of a hog,
And Puritans frown as he spins half a crown,
With a Rogilvie Ogilvie og, my boys,
With a Rogilvie Ogilvie og.

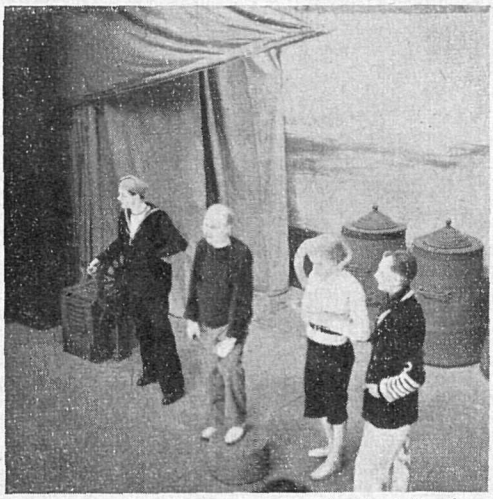

Photo by J. Bradbeer

The helmsman's name was Sammy Wass,
Whom better could I choose,
A downright fundamentalist
Of broad and basic views.
He'll turn astern with a rolling reel
That frollicking, rollicking dog,
He knows the feel of a rudder and keel
With a Rogilvie Ogilvie og, my boys,
With a Rogilvie Ogilvie og.

This, too is great stuff —another tune for the book : but we soon realise this heavenly bliss is doomed to end in trouble, for also aboard the lugger are four stowaways, Mac-Flair, Jibberd, Shirty and our hero Frank, mistrustful of his darling Wana's affections under the influence of the hot sun and the roving nautical glances of of two such experienced sailors. They've come to see fair play on Nisos Isle, and some sort of working agreement seems eventually to be achieved between them.

A classic last scene opens, as we had all hoped, to show our scholars attired as the Greeks would have liked and enjoying the peace of the ruined temple of Aphrodite—equipped with tape measure and pickaxe and intent on one of the more rewarding forms of archeological excavation. Fifi has attached herself to Sham and whilst Hurtyou expatiates on art in his natural tongue . . .

Στὰ χρυσα μαλλια εφόρει
Λουλοῦδ ἠ κόρι.
Δός τήν εὅπω δός μ'αυτό,
Καὶ αλλο δεν ζητῶ.

Ερυθρα μοῦ τὸ προσφερει
Με τὸν κρινοη χέρι.
Δός τὸ χερι δός μ'αυτό,
Καὶ αλλο δεν ζητῶ.

. . . we are treated to a piece of terpsichoreography that once more brings the house down. Willie Sham, somehow looking exactly like the master,

though clad in Greek robe and displaying anæmic lengths of leg, performs a difficult classic *pas de deux* with Fifi, supporting her at a distance with an expression of pained distaste for the whole procedure. Fifi, on the contrary, lets her hair down for this and lures Willie on to greater abandon by plucking a flower from her shapely bosom for him to fasten upon with the sort of ecstasy she hopes to arouse in this frigid Englishman. It is happily useless, for Willie never relaxes that waxy mask of utter distaste : he holds the flower with a perplexed gesture, longing to be back at Guy's, in the safer hands of Sister Farmer, with dear old Hurtyou communing with the arts or literature—anywhere but caught in the sinuous twinings of this creature. But he resigns himself to this classic duty and we laugh helplessly at this satire of scholarly Willie abandoning himself to the unenviable task his liking for the classical life has brought him.

Photo by J. Bradbeer

It is time to tidy up the story. When the cruising party arrives to find the scholars in possession, a parley—or as Hurtyou prefers to call it, a " mediæval disputation " ensues, but Willie, inflamed no doubt by his indulgences with Fifi, cannot stand Deadly Ratkins' egoism any longer, and stabs him to death. Deadly has thwarted him in Committee, in the Super's Office, even on the plains of ancient Nisos, and it is too much : he shall pay to the immortal gods. He strikes home, and old Hurtyou applauds the drama, for it is seemly in these surroundings. It is Shirty who takes the matter strongly in hand, for this is going a bit far even for a medical committee. But Sham is worked up and in no mood to surrender, as he puts it, " to a waterworks attendant ". " T.B. or not T.B. That is the question," he declaims—and, receiving no help from this departed spirit of the Super's House, plucks a weed of hemlock from the nearby rocks and crushes it into his mouth, to fall lifeless on the temple steps.

Jibberd applies his basic reasoning to this new problem. Essentially, he feels, they have failed in their task, and he is about to reason further when the denouément occurs. MacFlair, knocking out his pipe philosophically on the wall of rock inadvertently sets in motion the doorway to a cave—out of which who should walk but Dr. Folly, propelling loads of Persian loot. George had apparently forgotten, when he locked the MS. away in the office safe, that he'd left the key handy, and Folly had rapidly made his own plans to see that one of the Special Departments received some consideration in the re-building scheme. Hail to the obstetrician. MacFlair had done it again—this time with his pipe he'd disemwombed the key to their problems. The monosyllabic MacFlair is unimpressed.

Time must stop.
Plays must end.
Quotidien life is round the bend.
Things are not
What they seem.
Everyday living is just a dream.

The essence of being is Folly and Fun,
The appearance is merely a sham.
What more lies behind the perception of mind
Than " I cogitate, therefore I am " ?

This was, indeed, a jolly good play—well constructed and liberally besauced with wit and broader fun, warm-hearted yet never lacking in point, often

Photo by Topical Press Agency

delicious satire, in its survey of Guy's with its recurring " figures ", its communal strivings, its humanity and its trifling foibles and tattle. George Scott, who produced, achieved the distinction of entertaining us for two and a half hours without a hitch, without bangs " off ", clutter, stagey whisperings or even one wretch who couldn't think what to do with his hands—or become immobile when needed. The stage manager played his part in this with the same quiet efficiency and J. E. Scriven deserves much compliment for providing such a smooth-running vehicle : Guy's Theatre Club gave J. G. P. Hunt experienced help with the scenery and oiled the back-stage works in a way that older producers would have given much rum for. No doubt the main brace has to be spliced, for few amateur actors would dare face their staff in sheer sobriety, but we have a feeling that the polish and enthusiasm we have come to expect of the cast have more to do with sheer hard work than anything else.

One other important cog in this well-oiled machine stood well in line with the rest. The make up, artfully applied by P. K. M. Barrett, G. Evans, J. D. Ellis and P. Sykes gave the cast a suitably licensed camouflage—in the case of that hoary scholar, Hurtyou, to perfection : this actually *was* our beloved Vertue dispensing personality, goodwill and scholarly wit with an abandon that the traditions of the Residents' Play demand.

Guy's never fails to relax in this atmosphere and it is good to reflect on the foibles of the great, to laugh with those whom we love and to see ourselves as others see us for a little. K.S.

Annual Dental Clinical Meeting

FOR yet another year the Dental Society has proved itself the most virile and active student body at Guy's, due in no small measure to the constant support it receives from those who have already qualified. At the present time, when so much is said and written about the ways and means of keeping practitioners " in touch "—a subject to which attention has been drawn in the *Passim* of this issue—the Annual Dental Clinical Meeting held this year on Saturday, 1st March, set a high standard by way of example in this respect. Many and various, in ingenuity and interest, were the professional demonstrations that were staged throughout the Hospital, from " murder " to " gingivectomies ", from " oral hygiene " to " maxillary mobilisation " and from " an average morning clinic " to " oro-facial behaviour with orthodontic implications ". Suffice to say that not only were many present-day students enlightened and impressed but, more so perhaps, were numerous practising dental surgeons, back at Guy's with critical and appraising eye.

What once again made the day such an event was its social culmination at the Park Lane Hotel in the evening. The bar, before the meal, provided the ideal meeting place, where friends gathered and animated conversation prevailed. At the dinner, the President, Mr. W. A. Vale took the chair, with his charming consort by his side. Sir Cecil Wakeley, President of the Royal College of Surgeons, proposed the toast of " Guy's Hospital and Schools " and commented on the value of tradition—" something which could never be nationalised." Mr. W. D. Doherty responded. The one dismal item of news that he had to report was that, while the existing state of affairs, financially and internationally, continued, there was no prospect at all of rebuilding Guy's, at least for a number of years to come. On the other hand, he said, new precedents were yet being set, for not only did the Hospital now boast a woman Dental House Surgeon but, on that very night, 1st March, 1952, a woman House Surgeon was, for the first time in history, laying her head to rest where no lady had ever slumbered before—in a gloomy room in that gloomy building, the College in Maze Pond ! He went on to comment that, despite a recent reverse in the Cup, Guy's Rugger was in the process of revival, a process that might well be furthered when the First XV could once again boast as many as nine dental students among its ranks, the average number that figured in those outstanding and highly successful teams of the early 1920's.

The health of " The Visitors " was proposed most felicitously by Mr. F. N. Doubleday and the response made by Mr. E. Sansom who, in the course of a sparkling speech, questioned the wisdom of the scheme soon to be started for dental ancillaries. These ladies, he thought, might prove variously disturbing to members of a profession which, he continued, " failed to see the writing on the wall since they had their backs so firmly to it already."

Mr. J. W. Mansie spoke for " The President and his Lady " and Mr. Vale appropriately replied, pointing out that the lady concerned had at last had the opportunity of seeing for herself some of the mysteries and rites to which they were all so devoted on the first Saturday in March of each year, a ritual of which she had hitherto entertained a certain amount of understandable suspicion.

The closure of the official speeches by no means meant the end of the evening's enjoyment. Friends met further friends, sleeves were stripped and scars displayed and reminiscence took a prominent part in the host of stories which followed.

Correspondence

Residents' Play

SIR,—The songs in this year's Residents' Play were recorded during an actual performance and a selection from these is being made into a double-sided 10-inch record, the price of which will be 7*s*. 6*d*. In previous years a record has been made of the music, but this is the first time that the performers' voices will be heard. Anyone who wishes to buy one of these records, and has not already applied, should send their name to me by Saturday, 15th March.

Yours, etc.,

G. W. SCOTT.

The College,
Guy's Hospital,

Sport

RUGBY

Guy's *v.* Aberavon

At Port Talbot. Result—Lost 5—17
16th February, 1952

This was the Hospital's first game after a lapse of three weeks and was played under good conditions and at a cracking pace throughout.

Aberavon opened the scoring early in the game through an unconverted try. They obtained a larger share of the ball in the tight scrums and lines-out and continually threw the ball about. Their attacking movements were well planned and the Guy's defence was kept on the alert. Over anxiousness on the part of the Aberavon pack and sound defensive play prevented Guy's line from being crossed again in the first half. Guy's counter-attacked well and took play to the Aberavon line where their full-back was hard pressed to clear the ball. Davies and Cremin were prominent in these raids and the former, together with Meredith, served the Hospital well in the lines out. Guy's took the lead after 20 minutes through a try by James. From a breakdown in one of their three-quarter movements just inside the Guy's half James gathered the ball and ran upfield. When confronted with the full-back he put in a short kick ahead, gathered the ball on the bounce and scored near the post for Howells to convert. Guy's soon lost the lead when a forward was offside and a penalty goal resulted.

The Aberavon team played intelligent and attractive football and made good use of the ball. When it was Guy's throw-in in the line out, the Aberavon wing acted as scrum half and consequently there was always a man over in the three-quarter line. Three tries were scored in the second half, one of which was converted.

It was easy to see how Aberavon have established themselves as one of the finest teams playing Rugby today. The game was an object lesson in team spirit, fitness, quick passing at top speed and excellent backing up.

Guy's were very well entertained afterwards.

Inter-Hospitals' Challenge Cup

1ST ROUND

Guy's *v.* St. Bartholomew's

18th February, 1952. Result—Won 14—0

2ND ROUND

Guy's *v.* St. Thomas's

25th February, 1952. Result—Lost 3—9

In the first round of the Cup Guy's overcame Bart's. by gradually wearing down the opposition at forward where Kirkbride, Davies, Wilson, Fairweather and Meredith were outstanding. Behind the scrum the backs were unfortunate to lose the services of centre three-quarter Scott who had to move out on to the wing for most of the game. The three-quarters tended to run across the field and little ground was gained.

Guy's led at half time by a penalty goal kicked by Howells. Davies added to this in the second half with a second penalty and Howells converted a try by Honey following a good rush by the pack. James scored an unconverted try in the corner in the last minute of the game following a neat diagonal kick by Balfour Lynn.

On the Saturday previous to the 2nd Round game with St. Thomas's, both first XV half-backs, Balfour Lynn and Rankin were injured and the "A" XV half-backs, Screech and Knight, deputised—and gave a highly creditable performance under the circumstances. Osborn played at left centre.

This game was decided by kicks resulting from penalties of which there were many. It can be said that Guy's had their opportunities, particularly in the first half. With the score 3–3, Osborn made a good break on the left but his pass was knocked on when a score seemed certain. Guy's finished up the first half looking the better side.

The tale was somewhat different in the second half. Guy's did not make use of the chances which came their way whereas Thomas's were more cohesive in attack and got two more penalty goals following infringements at forward. W. J. Howells kicked the penalty goal for Guy's.

Team : W. J. Howells ; E. O. James, G. D. Thomas, T. W. Osborn, B. L. Dodson, G. Screech, R. K. Knight ; J. W. Kirkbride, N. A. Labuschagne, D. K. Fairweather, C. T. M. Wilson, H. C. Meredith, B. J. Cremin, W. G. Davies, D. P. Honey.

ASSOCIATION FOOTBALL

Guy's *v.* Ibis

Away. Result—Drew 2—2
9th February, 1952

This was a match which Guy's should have won comfortably in the first half ; but they failed to press home their attack when they had the advantage of a sloping pitch. Guy's, however, were soon two goals ahead due to the efforts of Oldfield and Cornhill, but this lead was soon reduced by a well-taken free-kick which the Hospital goalkeeper misjudged.

The game became a rather scrappy affair, and though the Guy's forwards were in the home penalty area frequently they would not shoot, but preferred to dribble, and were promptly shouldered off the ball by a keen defence. Lee at centre forward displayed dash and determination but his example was not followed by the other forwards.

The second half saw Ibis on the attack, and the defence did very well to keep the score down to a single goal scored when the Hospital right back failed to clear the ball.

Guy's *v.* Pearl Assurance

At H.O.P. Result—Won 4—3
16th February, 1952

Guy's gained two points in their game with Pearl Assurance at Honor Oak Park—a result of playing open football with first-time passes splitting open the Pearl defence.

Maggs at centre forward played an especially fine game and scored two excellent goals. Cornhill and Oldfield added two more goals, and although A. Fearn was unlucky to head the ball into his own goal, the Hospital were 4–1 in the lead at half-time.

However, the second half saw a return to the old ways of hesitancy in front of goal, bad marking and dribbling with the ball by the home defence in their own area.

Pearl were quick to notice this and their centre-forward scored two fine opportunist goals, shooting first time, which gave Lewis in goal no chance. Guy's defence was now hard pressed, and their play deteriorated ; passes were going astray, a complete contrast to the previous half, and there was a general sigh of relief when the final whistle blew.

Hospitals' Cup Semi-Final

Guy's *v.* St. George's

At Teddington. Result—Drew 3—3

20th February, 1952

Guy's travelled to Teddington for the Semi-Final of the Hospitals' Cup and were fortunate to draw. The honours of the game went to St. George's.

Guy's had most of the play in the first half but the Guy's forwards gave their most inept display of the season. The St. George's defence was much too alert, and the close type of football they played aided St. George's defence who promptly crowded their goal and prevented any serious moves developing. The St. George's inside left, the best forward on the field, put his side in the lead with two well-taken goals, although the second goal should have been saved. He was always where he was most needed, and always ready to shoot at the first opportunity ; an example the Guy's forwards failed to follow.

This game dragged on into extra time, a dull, scrappy game, and when the final whistle blew Guy's were lucky to leave the field still in the Cup competition. Cornhill (2) and Oldfield scored for the Hospital.

Team : J. Lewis ; A. Fearn, J. F. Wylie ; D. Lipington, D. Allen, P. Southgate ; D. Oldfield, D. Harris, B. Cornhill, D. Matthews, N. Crabtree.

Guy's *v.* Old Lyonians

Away. Result—Lost 1—2

23rd February, 1952

Guy's were unlucky not to gain a point at Pinner View in their Southern Amateur League match.

On a ground heavy in the goal areas, the Lyonians adopted the correct procedure of first-time kicking in defence. The failure by Guy's to follow this example cost them two points.

Lyonians opened the scoring early in the second half, their centre forward scoring with a glancing shot from an extreme angle—deservedly a good goal. Guy's immediately replied through Maggs, who ploughed his way through the mud to score. Play was still very even, with the Hospital team playing a great deal better than of late.

Burns on the left wing worked hard and constantly harassed Macintosh, the Lyonians' most outstanding player. Shortly before time the home team scored the winning goal after a sad defensive lapse by one of Guy's defenders who did not clear a loose ball. Guy's were decidedly unlucky to lose.

HOCKEY

Inter-Hospitals' Cup—Semi-Final

Guy's *v.* St. Mary's

At H.O.P. Result—Won 3—0

20th February, 1952

Guy's scored a memorable victory in defeating a strong and competent side from St. Mary's by three goals to nil, and so enter the final of the Cup yet again.

The game, played under excellent conditions, reached a remarkably high standard of play throughout, with both teams leaving nothing to chance, and playing with an intensity seen regrettably seldom in the normal course of the season.

From the bully-off St. Mary's proceeded to show us a well-balanced and efficient forward line, well supported from behind ; and if Guy's defence creaked once or twice, it did so inaudibly. After several strong attacks, we slowly and steadily mastered the play, which was quickly and evenly distributed over the entire pitch.

After several orthodox attacks had failed, Guy's took the lead through Blake, who scored from a pass across the goalmouth, already congested with players. On reflection, it would seem that the scoring of the first goal is an all-important feature of Cup hockey, and the effect of this goal, if not electrifying, was greatly heartening. Thus, at half-time, after having played into the wind and sunlight, the odds were in our favour.

Guy's then proceeded to exploit this, and at this stage the supremacy of the half-backs almost shut the St. Mary's forwards out of the game. Frequent determined attacks on the St. Mary's goal were well sustained, and from one of the penalty corners resulting from the onslaught, Linahan gained possession and scored with the defence apparently caught off balance. Thereafter, Guy's lead was never seriously menaced and, in fact, Bishop was only called upon to deal with one shot. Indecisive tackling and clearing in our own " 25 " showed a vast improvement on current form.

Still the pace was maintained, and one could sense the true excitement of the contest. From further pressure Blake picked up a pass at the edge of the circle and put Guy's into an unassailable position. The entire Guy's team deserves congratulation in the way each rose to the occasion, but the outstanding feature was the domination of Vans Agnew, Linahan and Robinson in mid-field, supported by the thrust of the inside forwards.

Team : C. Bishop ; R. Park, E. A. Murray ; W. Vans Agnew, D. Linahan, C. F. M. Robinson ; M. Cox, J. J. Hall, D.E. Blake, J. I. Millar, D. V. Duckworth.

FENCING

Guy's *v.* St. Bartholomew's

A 4-foil match was played at Guy's on 6th December, 1951, and won by 11 fights to 5.

Guy's *v.* King's College Hospital

Another 4-foil match was played away on 17th December, 1951. Unfortunately one member failed to reach K.C.H. and our hosts therefore made up our team. The resultant match was won by 13 fights to 3.

Guy's *v.* R.N. College, Greenwich

A 3 foil, 3-épée match was played at Guy's on 28th January, 1952 and won, foil by 6 fights to 3, épée by 5 to 4.

Guy's *v.* London Hospital

A 4-foil match was played away on 5th February, 1952, and won by 13 fights to 3.

Inter-Hospitals' Cup, First Round

Guy's *v.* Charing Cross and R.D.H. "B "

This match was won by 14 fights to 2, on 18th February, 1951, at Guy's.

(Next round : Guy's *v.* St. Bartholomew's.)

University Inter-College Cup

In this Cup Guy's had a bye in the first round and met St. Thomas's in the second, to sustain the first defeat this season. Fights were even at 8 each, but Guy's had 44 hits against to St. Thomas's 40.

House Appointments

1st MARCH, 1952

ASSISTANT HOUSE SURGEONS.

To Mr. Slesinger : Mr. A. Fairley.
„ Mr. Wass : Mr. A. P. Blower.
„ Mr. Blackburn : Mr. E. D. Sonnenfeld
„ Mr. Lawrie : Mr. D. C. Wilkins.
„ Mr. Glover : Miss E. Morrison

Appointed for six months, the first three months as A.H.S.

OUT-PATIENT OFFICERS.

Mr. G. B. Davison.
Mr. P. F. P. Lansdown.
Mr. J. Palmer.
Mr. E. J. Rolls.
} 3 *months.*

HOUSE SURGEONS.

To Sir Heneage Ogilvie: Mr. J. W. Goodfellow. 3 *months.*
„ Mr. Massie : Mr. J. G. Hamilton. 6 *months.*
„ Mr. Eckhoff : Mr. W. V. James. 3 *months.*
„ Mr. Atkins : Mr. E. F. Soothill. 6 *months.*

HOUSE PHYSICIANS.

To Sir John Conybeare and Dr. Hardwick: Mr. A. S. Harris. Mr. P. A. Zorab. 6 *months.*
„ Dr. Douthwaite and Mr. W. G. Davies
„ Dr. Mann : Mr. P. V. Skinner. 6 *months.*
„ Dr. Boland and Mr. D. J. Stoker.
„ Dr. Baker and Mr. J.-C. Gazet.
„ Dr. MacLean : 3 *months.*
„ Dr. Hampson and Mr. G. A. E. Baker.
„ Dr. Kauntze : Mr. G. A. Taylor. 3 *months.*

RESIDENT OBSTETRICIANS.

1.11.51—30. 4.52 : Mr. J. Taylor.
1. 1.52—30. 6.52 : Mr. W. M. E. Tweed.
1. 3.52—31. 8.52 : Mr. D. R. Pugh.
1. 5.52—31.10.52 : Mr. R. D. Allen.

OPHTHALMIC HOUSE SURGEON.

Mr. J. H. Bailey. 6 *months.*

THROAT AND EAR HOUSE SURGEON.

Mr. P. L. Pelmear. 3 *months.*

DERMATOLOGICAL HOUSE PHYSICIAN.

Mr. C. H. Wilkinson. 3 *months.* (Non-Resident).

NEUROLOGICAL HOUSE PHYSICIAN.

Mr. I. Kelsey Fry. 6 *months.*

GENITO-URINARY HOUSE SURGEON.

Mr. J. M. Holmes. 6 *months.*

CHILDREN'S HOUSE PHYSICIANS.

Mr. G. H. Fisch. 6 *months.*
Mr. C. F. Bolton. 6 *months.*

HOUSE SURGEON TO THE THORACIC UNIT.

Mr. S. H. Richards. 3 *months.*

HOUSE SURGEON TO THE NEURO-SURGICAL UNIT.

Vacant.

RESIDENT JUNIOR CLINICAL PATHOLOGISTS.

1.10.51—31.3.52 : Mr. J. A. J. Smith.
12.10.51—11.4.52 : Mr. J. T. Cecil.
1. 4.52—30.9.52 : Vacant.
12. 4.52—11.7.52 : Mr. J. T. Cecil.

HOUSE PHYSICIANS IN THE YORK CLINIC.

1.3.52—31.5.52 : Mr. P. J. F. Walsh.
1.3.52—31.8.52 : Mr. M. S. Compton.

RESIDENT ANÆSTHETISTS.

20. 9.51—19. 3.52 : Mr. P. S. B. Russell.
12.11.51—11. 5.52 : Mr. K. A. Baker.
20. 3.52—19. 9.52 : Mr. P. S. B. Russell.
12. 5.52—11.11.52 : Mr. K. A. Baker.

R.M.O's., NUFFIELD HOUSE.

18. 9.51—17. 3.52 : Mr. M. C. Gilbert.
8.10.51— 7. 4.52 : Mr. A. Cumin.
18. 3.52—17. 9.52 Mr. M. C. Gilbert.
8. 4.52— 7.10.52 : Mr. H. M. Baird.

ORPINGTON GOSPITAL.

House Surgeon.
Mr. F. D. Burgess.
House Physician.
Mr. G. E. Sharp. 3 *months.*
Throat and Ear House Surgeon.
Mr. G. M. Karpusheff. 3 *months.*
Gynæcological House Surgeon.
Mr. F. C. Shelley.

QUEEN MARY'S HOSPITAL, SIDCUP.

House Physician.
Mr. W. A. R. Bufton.
House Surgeon.
Mr. E. J. Stacey.

Hospital Information, etc.

APPOINTMENT VACANT

Applications are invited for the locum appointment of **Registrar** (1st year) to the Department of **Psychological Medicine.** Duties to commence as soon as possible until 30th September, 1952, and will entail care of in-patients and out-patients and will provide opportunities for acquiring the technique of psychotherapy and for research into psychosomatic problems. Forms of application, obtainable from the Superintendent, Guy's Hospital, should be forwarded not later than **18th March, 1952.**

DISSOLUTION HONOURS

Knight Batchelor

Dr. W. Ferguson Hannay

THIRTY CLUB DINNER, 1952

The Twenty-third Annual Dinner of the Thirty Club will be held on Friday, May 23rd, 1952. Will members kindly make a note of the date. Further details will be sent to members is due course.

STUDENT CHRISTIAN MOVEMENT

An open meeting of the Student Christian Movement in Guy's will be held in the New Theatre at 5.0 p.m. on Friday, 14th March, when the Revd. St. J. B. Groser (whose film "Murder in the Cathedral" recently had its West End premiere) will speak on "The Church and the World of Today." Tea, price 6d., will be available at 4.30 p.m.

UNIVERSITY OF LONDON

APPOINTMENT OF EXAMINERS, 1952

Applied Pharmacology : Professor J. M. Robson.

Forensic Medicine : Dr. F. E. Camps, with Dr. J. H. Ryffel to act in an emergency.

Medicine : Dr. W. N. Mann.

Obstetrics and Gynæcology : Mr. G. F. Gibberd and Mr. J. B. Blaikley.

Surgery : Mr. S. H. Wass.

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Final Examination

Part I. Surgery

January, 1952

P. N. Dawson	C. R. G. Samuels
J. A. G. Dunn	J. W. Sharpe
R. F. Hall	P. J. Southgate
D. K. Hardy	D. L. J. Thomas
G. V. Howard-Kyan	G. H. Tucker
R. C. Jeffery	J. M. Turner
D. H. MacLeod	G. A. Watkins
C. W. H. Moore	W. H. Watson
E. P. Reynolds	

Part II. Dental Surgery

K. Ballantyne	O. D. Nazroo
R. M. Clarke	D. J. Neill
G. H. Danford	P. L. Pickett
M. J. Fawcett	K. H. Pickup
A. R. Fooks	F. Roth
J. M. Hobbs	R. D. Rowe
R. F. Hodson	P. M. Rusden
D. A. Holford	N. Shotts
H. S. Irvine	P. Sykes
R. E. Lee	D. W. Thomas
J. H. McCormick	P. W. P. Warren
D. G. Matthews	D. O. Wilkes
J. A. Mepsted	A. E. Woods

PAPERS BY GUY'S MEN

Atkins, H. J. B. Pain in the Breast (an Address delivered to York Medical Society). *Lancet*, 1952, i, 271.

Bishop, P. M. F., and others. Observations on Prolonged Cortisone Administration in Rheumatoid Arthritis. *Brit. med. J.*, 1952, i, 397.

Blaikley, J. B. Discussion on the Care of the New-Born Baby (Joint Meeting, Section of Pædiatrics with Section of Obstetrics and Gynæcology). *Proc. R. Soc. Med.*, 1952, **45,** 98.

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PART 1

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Some Medical Associations of Samuel Johnson. By F. N. Doubleday. pp. 45–51.

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CHANGES OF ADDRESS

M. M. Levene, M.R.C.S., L.R.C.P., L.D.S., R.C.S., 170, Cottenham Avenue, Kingsford, N.S.W., Australia.

D. J. Neill, D.F.C., L.D.S., R.C.S., 16, Tufton Court, Tufton Street, London, S.W.1. Tel. : Abbey 6389.

A. K. Hancock, M.R.C.S., L.R.C.P., 104. Sapper Street, New Westminster, B.C., Canada,

F. R. M. Young, M.B., B.S., The Hollies, Victoria Road, Macclesfield, Cheshire. Tel. : 4234.

BIRTH

HOUSTON.—On March 3rd, 1952, in Nuffield House, to Dr. Thelma C. Houston (née Cruickshank), wife of Dr. J. C. Houston—a a third son.

NICHOLS.—On January 10th, 1952, at King's College Hospital, to Ann, wife of R. R. W. Nichols, M.R.C.S., L.R.C.P.—a brother for Jill.

RUMBLE.—On February 21st, 1952, to Joyce (née Rose), wife of J. F. S. Rumble, L.D.S., R.C.S. (Eng.)—a son (Michael John Scott).

MARRIAGE

NEILL—JORDAN.—On February 16th, 1952, at the Church of St. Mary, Ide Hill, near Sevenoaks, D. J. Neill, D.F.C., L.D.S., to Iris Jordan.

DEATH

LUCE.—On February 22nd, 1952, Sir Richard Harman Luce, K.C.M.G., C.B., F.R.C.S., Consulting Surgeon, Derbyshire Royal Infirmary, of Chirk Lodge, Romsey, Hants.

EDS. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1661 *22nd March* 1952 *One Shilling*

PASSIM

THE reader of Dickens, appalled as any human being must be by the misery and squalor he described may well feel thankful that there has been so great improvement in social conditions since that time. Debtors' prisons, such as the Marshalsea prison which once stood near Guy's, protracted Chancery litigation, such as Jarndyce and Jarndyce, which ruined honest men, the plight of orphans, the hunger and disease which in the last century were the natural accompaniments of poverty, all these in eighty years have largely been lifted from our land. Yet not quite all ; and the Dickens reader comfortable in the knowledge that the State now cares so much better for the least fortunate of its citizens might still do well to inquire just what the living conditions of some of these are like today.

Anyone working at Guy's, but especially those whose work takes them into Borough homes, such as our midwives and health visitors, has a good idea of local conditions. Nor indeed is anyone else at Guy's, or amongst the local general practitioners who send us patients, under much illusion how much remains to be done before even minimum home living conditions for many of our patients are attained. The many children attending Guy's with ear disease and rheumatic fever whose homes are damp and whose future lives will be marred by deafness or heart disease are, for us, too constant a reminder. Yet there is another group of Guy's patients whose wretched and often squalid background is in danger of being overlooked.

The " Borough " contains many lodging houses. Some, such as that run by the Salvation Army, are clean and well ordered. Others are dirty, ill-run places—a disgrace alike to their owners and to the community which tolerates them. They are inhabited by men and women of all sorts ; some whose only crime is that they have no homes of their own, others whose way of life makes a shifting abode only too convenient. Lawlessness, drunkenness and disease occurs all too commonly. That greater lawlessness does not originate from these places is more a tribute to our Police than our social reformers. The numbers of inmates of these lodging houses who attend Guy's seeking treatment make it reasonable for us to ask whether greater supervision and better conditions in these places would not be as much in the interests of the health of the community as it is in the interests of humanity. The amenities of a common lodging house can never equal those of a home, but the sooner there are fewer to which even the fit dread returning the sooner will another blot on our social landscape have been removed.

The Residents' Ball will be held this year on Friday, 2nd May, at the Park Lane Hotel. The number of tickets available is limited and we have been asked, therefore, to suggest that early application for them be made to the President of the Residents.

Hippocrates in Ancient and Modern Times*

By W. N. MANN, M.D., F.R.C.P.
Assistant Physician to Guy's Hospital

Les principes ou les théories qui servent de base à une science, quelle qu'elle soit, ne sont tombés du ciel ; il a fallu nécessairement y arriver par un raisonnement investigatif, inductif ou interrogatif, comme on voudra l'appeler. Il a fallu d'abord observer quelque chose qui se soit passé au dedans ou au dehors de nous.

—CLAUDE BERNARD.[2]

Tradition may be conceived as a by-product of right living, not to be aimed at directly. It is of the blood, so to speak, rather than of the brain : it is the means by which the vitality of the past enriches the life of the present.

—T. S. ELIOT.[10]

HIPPOCRATES' PLACE IN THE ANCIENT WORLD

WHAT is it in the quality of the Hippocratic writings which has kept the Profession faithful to them for 2,500 years, while it is only within the last century that something more than an acquaintance with them was not expected of every doctor ? We may wonder at the clarity of his clinical description, at his diagnostic skill, at his terse language and at his power to make discoveries in medicine, some of which have long been believed the products of a later age. There is, however, in the *Hippocratic Corpus*, more than this. There is the concept of the practice of medicine both as a Science and as an Art, and in its study an Education.

The fame of Hippocrates as a practitioner, teacher and writer quickly spread through the civilized world. The details of his life and origins must have been well known to his contemporaries ; perhaps even because of that, little written detail has come hown to us. There exist but one or two references in the Greek literature of the time and these fix his date as the latter half of the fifth century B.C. ; the year of his birth is usually given as 460[3]. It is from Plato[15] we learn that Hippocrates came from the Isle of Cos in the Aegean, just off the coast of Asia Minor, that he was a famous physician and that he taught medicine for fees. Further, we learn that he was " one of the Aesclepiads ", a description to which I shall return later. Such are the sure facts of his life and, with the spread of learning and creation of libraries, it is not surprising that a continued demand for details of his life should have stimulated the ingenious biographer where the records of history fail.

It is not until many centuries after his death, in Pliny's *Natural History*[16] and in the biography by Soranus of Ephesus[17], which was not written until the 2nd century A.D., that we are furnished with a less exiguous account of his life. Although some of these writings no doubt represent more or less true tradition, it must have been tempting to fill in the canvas, and we can only speculate on what is true and what is fanciful. Pliny describes how Hippocrates went round the temple of Aesculapius in Cos copying down the recorded cures and, having done so, burnt down the temple. Another account makes the Public Record Office of Cnidus, the rival medical school, the scene of arson. It is difficult to believe either story. There seems little doubt, however, that Hippocrates was in demand as a teacher and practitioner ; that he travelled widely and lived to a good age, dying eventually in Larissa where he was buried. It is said, but not believed, that he was invited to Athens to deal with an outbreak of plague, and that he received and refused a summons to the imperial court of Persia.

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* *An address given to the Osler Club on February 8th, 1952, at the Royal College of Surgeons.*

We would like to know what he looked like. Portrait busts from græco-roman times show an impressive and characteristic head, but there is nothing other than tradition to suggest they show a true likeness. However, a few years ago a head was dug up near Rome which archæological evidence suggests might in fact be copied from a contemporary portrait. The head itself is of Roman date. Although it is inscribed with no name, carved on the plinth are words reminiscent of the first Aphorism. It is tempting to think this a true portrait. It shows a heavily built head with large and deep forehead, deep set and penetrating eyes, a heavy mouth and a look of benign irascibility which the tone of some of his lectures does not belie.

Of more interest, although perhaps less amusing than the many dubious biographical details which Soranus records, is Plato's statement that Hippocrates was an " Aesclepiad ". The late Professor Gask[11] made a special study of the early medical schools and discussed, in a detailed study of the cult of Aesculapius, the origin of Hippocratic medicine. During the 5th century B.C., the cult of Aesculapius was popular and fashionable in the Greek Empire and important temples were established at Athens, at Epidaurus, at Pergamos in Asia Minor and in Cos. It is inviting to believe that these temples represented the clinics and thermal establishments of the ancient world where rational medicine of the Hippocratic kind was practised and of which the Aesculapium of Cos might boast Hippocrates as its chief ornament. There seems little doubt, however, that although the distinction and wealth of the patients visiting them might suggest some resemblance to the modern spa, the cult, apart from some gymnastic exercises and attention to diet, was essentially based on magical practices which ill agree with all we read in Hippocrates. As Gask says, " There seems to be a vague idea that Greek Medicine sprang fully-fledged into being with the coming of Hippocrates. This is really not the case, and there is as much reason for so thinking as to suppose Greek art, architecture and sculpture started in the time of Pericles and that the preceding culture of Minos and Mycenæ counted for nought."

Hippocrates himself must have been instructed in the principles of rational medicine, however much he added his own observations, and he must have inherited from his predecessors a scientific and not magical tradition. It is difficult to believe that he was closely associated with the temple of Aesculapius. It has been suggested by Withington[18] that the " Aesclepiads " formed a guild of doctors who subscribed to the Hippocratic Oath, but the evidence is scanty[13]. It is more likely that they formed a family line of physicians. Tradition has it that the family were originally derived from the union of Apollo with a Thessalonian princess which resulted in the birth of Aesculapius who learned his medicine from a Centaur ; from this distinguished, not to say baroque, origin, Hippocrates eventually sprang.

The Hippocratic Corpus

It is interesting to discuss how many or which of the works which constitute the *Hippocratic Corpus* are the genuine works of Hippocrates himself. The *Corpus* itself is vast and represents the library from several early Greek medical schools, first compiled or edited about two hundred years after his death by the scholars of the great University of Alexandria. Thus, apart from works written by Hippocrates, or those which constituted part of the teaching of his school, a number of spurious and later works inevitably became attached. Critical methods, both philological and medical, can distinguish them. It is surprising how often a work which has not the authentic ring in its material can be shown on grounds of language to belong to a different school or to a later age.

Earlier critical views on the *Corpus* were amply dealt with in the great standard edition of Littré[14] and also in Francis Adams' English translation for the New Sydenham Society.[1] Modern criticism has substantially upheld the traditional views of authenticity. The main result is that a considerable amount of writing bears the authentic stamp of Hippocrates' name, or represents at least contemporary or local writing ; or it formed part of the traditional medical learning he inherited from his own teachers.

Hippocrates the Scientist

At the time Hippocrates wrote, the Greek world was enjoying the brilliant youth of a noble intellectual and artistic age. Pericles, Phidias, Socrates and Plato were contemporary or nearly so. The cities of the Aegean and Ionia on the nearby shores of Asia Minor, were the particular centre of this activity and it is likely that medical schools existed in Cos, at Cnidos not far away on the mainland, and later in Southern Italy and Sicily where Greek civilization early gained a footing.

Scholars, both preceding and contemporary with Hippocrates, were already experimenting with new theories in the parent study of Natural Philosophy, unshackled by the dark origins of science in the magic of the barbarians, or by the prejudices and complexities of a later age. The best Greek thought of the time was permeated by a spirit of eager enquiry and of speculation about the nature of the physical universe and the significance of psychological phenomena. Through these parallel studies in the biological and physical sciences, which were ultimately to culminate in the great work of Aristotle, Hippocrates was well endowed with a clear conception of inductive scientific method. It was the fault of the early Greek scientists that their love of theory and the charm of dialectic took them beyond the knowledge of observed facts, while the idea of experiment was foreign to their conception of the place and dignity of the philosopher. Perhaps it was fortunate then that Hippocrates was born an Aesclepiad, that his career and fortune depended upon his practice of medicine ; for thus he was brought into contact with the immediate problem of life and death, and the experiments provided by nature. Born a scientist, medicine provided him with the laboratory in which to practice his talents. By his insistence on watching with acute perception natural phenomena, he steered the progress of science on to the highway of discovery, and left speculation unsupported by observation to the sterile lanes which lead to metaphysical confusion.

Nowhere is his attitude in this respect better seen than in the introductory pages to his work on epilepsy. This disease was generally regarded as due to demoniacal possession and thus to supernatural causes. He argues that this particular disease is no more sacred than any other ; that the phenomena it shows are only divine in the sense that all presence of disease, or of any other natural event, may have a divine origin. And having established this point, he goes on to describe the malady in terms which would not disgrace many a lecturer today.

Together with this skill in the separation and description of a clinical entity, he realised that there were other methods by which the science of medicine might be enriched. He saw that in the practice of the ancients and in popular habits and tradition was provided a body of empirical observation which could be studied with profit. He points out that the Art of Medicine first began when man first noticed which food was good for him and which was inimical, when he discovered methods of cooking and learnt by fortifying nature how not to disturb it. Perhaps we might note, in modern times, how the use of liver soup centuries ago in China and the empirical use of bananas in the treatment of sprue, held the clue to modern therapy long before anything was known about folic acid, or of phosphorylization and the peculiarity of pentose sugars.

So much about the observational methods of Hippocrates is well-known. It is not so generally realised that he saw the possible value of the experimental method. To us, with our Harveian tradition, the method seems natural enough although it is perhaps to Claude Bernard[2] we owe a clear concept of the distinction between the science of observation or *induction*, and the science of experimentation or *deduction*. He points out that an experiment is in essence simply a provoked observation : an intuitive idea tested by the result of an experiment born of that idea. I think there is no doubt that Hippocrates grasped the essential idea of biological experiment. At the end of a noble work, *The Science of Medicine*, he states that " Even when nature does not produce signs they may be revealed by certain harmless measures known to those practised in the science."[4] He then goes on to describe an exercise tolerance test or how, " If a patient be made to walk uphill or to run, abnor-

malities in respiration will be observed which would not be apparent at rest." He suggests that certain drugs, by modifying the secretions of the body, may reveal disease. Lastly, there is the remarkable passage at the end of *Tradition in Medicine* which, although textually obscure, probably reads, " Thus, if anyone were able to light on the truth by experiment outside the body, he would always be able to make the best pronouncements of all."[5]

He made many contributions to medicine and biology apart from those of the bedside. In *Airs, Waters, Places* he found the science of medical hydrology and discusses the relation of race and ecology to the development of disease. In connexion with these discoveries, there is a very important aspect of his work which I do not think has, as yet, received comment. His conception of diathesis or constitution in the development of disease is well-known, but a careful study of his work, particularly of *Airs, Waters, Places* and of the *Sacred Disease*, show that he had an idea of genetic laws, and anticipated Lamarck by more than 2,000 years. In the former work he describes the differences of race as seen in the inhabitants of the Danubian marshes, in the Scythians and in others. Although much of this fascinating work is lost, sufficient remains for wonder. Noticing the Macrocephali who had long heads, he sees in this the inheritance of an acquired characteristic. " First the Macrocephali ; no other race has heads like theirs. The chief cause of the length of their heads was at first found to be in their custom, but nowadays nature collaborates with tradition and they consider those with the longest heads the most nobly born. The custom was to mould the head of the newly-born children with their hands and to force it to increase in length by the application of bandages and other devices which destroy the spherical shape of the head and produce elongation instead. The characteristic was thus acquired at first by artificial means, but, as time passed, it became an inherited characteristic and the practice was no longer necessary. The seed comes from all parts of the body, healthy from the healthy parts and sickly from sickly. If, therefore, bald parents usually have bald children, grey-eyed parents grey-eyed children, if squinting parents have squinting children, why should not long-headed parents have long-headed children ? "[6] If the reasoning is wrong, we cannot but praise the observation and the scientific attempt to explain it.

Hippocrates then first codified medicine, pointed out the value of tradition and, at the same time, saw the working of natural causes exemplifying natural laws in the production of disease. He realised that pathological processes were not due to some strange perversion of natural law brought on by the angry gods, but that physiology and pathology are one. Haldane[12] wrote, " Hippocrates treated the unconscious activities of life as a natural process. He claimed the right to interpret them in accordance with actual observations, regardless of superstition and of the intrusion of philosophical opinion not based on observation of them. In observing nature just as she appears in the phenomena of life, and basing his opinions directly on the observations, he founded scientific medicine, and with it, it seems to me, scientific biology."

Hippocrates the Doctor

Hippocrates was a practical man, and a practising doctor. While it is perhaps true that the discoveries he made in medical science would eventually have been made by others sooner or later, it is astonishing how much in the classical description of single diseases we owe to him. Indeed, apart from some experimental work in Alexandria, there was hardly an advance in the practical aspects of the science until the Renaissance revived the search for knowledge, and the Italian anatomists and our own Harvey and Sydenham so brilliantly opened the modern age of Medicine. Whenever I read Hippocrates, I never fail to be astonished at the way in which he grasped the identity of a disease, how he could make generalisations from observations on particular patients ; how he could see the significance of a special sign. We owe a description of an epidemic of mumps to his pen. " Many people suffered from swellings near the ears, in some cases on one side only, in others both sides were involved. Usually there was no fever and the patient was not confined to bed. In a few cases there was slight fever. In all cases the swellings subsided without harm and none suppurated as do swellings caused by other disorders. The swellings

were soft, large and spread widely ; they were unaccompanied by inflammation or pain and they disappeared leaving no trace. Boys, young men and male adults in the prime of life were chiefly affected and of these, those given to wrestling and gymnastics were specially liable. Few women took it. Many patients had dry, unproductive coughs and hoarse voices. Soon after the onset of the disease, but sometimes after an interval, one or both testicles became inflamed and painful. Some had fever, but not all. These cases were serious enough to warrant attention, but for the rest, there were no illnesses requiring care."[6] He describes the association of cystitis and vesical stone, but perhaps his most brilliant clinical observations are related to pneumonia and empyema. " The formation of empyemata, especially following pleurisy and pneumonia, is attended by pyrexia, slight by day but more intense at night. The patients bring up no sputum worth mentioning, they sweat about the neck and shoulders, their eyes become sunken, the cheeks flushed, the tips of the fingers become warm and rough and the nails become curved ; they have fits of chilling . . ."[6] I wonder how many of us, even with the advantage of working in a modern hospital would have observed clubbing of the fingers in cases of suppuration with the chest, had we not been told of its significance on our first day in the wards. It is tempting to quote many other examples of his clinical brilliance, but the discoveries are there to be made for yourselves.

Hippocates was the first to conceive the idea of allergy, an idea which was only rediscovered within the last century. In his book *Tradition in Medicine*, he discusses the subject of cheese. " Cheese is not equally harmful to all. Some can eat their fill of it without any unpleasant consequences and those whom it suits are wonderfully strengthened by it. On the other hand, there are some who have difficulty in digesting it. There must, then, be a difference in their constitutions and the difference lies in the fact that, in the latter case, they have something in the body which is inimical to cheese and this is aroused and disturbed by it. Those who have most of this humour and in whom it is at its strongest, naturally suffer most. If cheese were bad for the human constitution in general, it would affect everyone."[9]

Hippocrates then excelled not only in the bedside practice of medicine but in the scientific and academic side too. He could descend from his professorial chair and give good sound advice on the advantages of accurate prognosis in enhancing one's reputation and hints on the profitable management of practice.

Hippocrates and Medical Ethics

I have said enough to show that Hippocrates was a great physician and a great scientist. Perhaps his hand in some of his discoveries and observations are forgotten today, but everyone, I think, connects his name with the ethics of medical practice. He was not a cold man, fit just to observe the manifestations of disease and to apply himself to their cure for fees, although he found no shame in accepting his rewards. He was a warm man, strong in his opinions and above all in opposition to chicanery in all its forms. Although there is no real evidence that the Oath is of Hippocratic origin, there is no doubt that it reflects the ethics of Hippocratic practice. It lays down the principles which should underly the profession of the physician ; "To help the sick to the best of my ability and judgment, to keep secret whatever I see or hear professionally or privately that which ought not to be divulged."

It is a pity that subscription to this noble code is no longer demanded on the admission of the newly-qualified practitioner. It would shock the School of Cos to learn of the easy way in which the confidences of our patients are demanded for administrative convenience, and in our new world a reversion to Hippocratic medical ethics is surely due.

Epilogue

In the works of Hippocrates, we have not just an interesting collection of old medical books which allow us to marvel at the intelligence of a doctor who lived a long time ago.

It is impossible to read these works without a feeling of humility and a better understanding of the charity of medicine for he gave tradition to the Art we practice. We have a compendium of all that is best in the Art of Medicine and a sure exposition of its scientific principles. For through them all runs Hippocrates' insistence on careful observation, industrious toil and scientific honesty. " Science and opinion are two different things ; science is the father of knowledge but opinion breeds ignorance."

REFERENCES

[1]Adams, F. (1849), *The Genuine Works of Hippocrates*, London, **1**, p.24.
[2]Bernard, C. (1928), *Introduction à l'Etude de la Médicine Expérimentale*, 3rd edition, p. 35.
[3]Chadwick, J. (1951), *Guy's Hosp. Rep.*, **100**, 210.
[4]Chadwick, J., and Mann, W. N. (1950), *The Medical Works of Hippocrates*, Oxford, p. 89.
[5]———(1950), *ibid.*, p. 28.
[6]———(1950), *ibid.*, p. 103.
[7]———(1950), *ibid.*, p. 29.
[8]———(1950), *ibid.*, p. 253.
[9]———(1950), *ibid.*, p. 25.
[10]Eliot, T. S. (1934), *After Strange Gods*, London, p. 30.
[11]Gask, G. (1950), *Essays in the History of Medicine*, London, p. 1.
[12]Haldane, J. S. (1928), *The Sciences and Philosophy*, London, p. 77.
[13]Jones, W. H. S. (1923), *Hippocrates*, **1**, p. xlv.
[14]Littré, E. (1839–61), *Oeuvres Complétes*, Paris.
[15]Plato (1924), *Protagoras* 311*B*, (Loeb edition), London, IV, p. 99.
[16]Pliny (1856), *Natural History*, (Bohn edition), London, V, p. 371.
[17]Soranus of Ephesus (edited by J. L. Edeler), (1841), *Physici et Medici Græci Minores*, Berlin, I, p. 252.
[18]Withington, E. T. (1894), *Medical History from the Earliest Times*, London, pp. 46 and 377.

March **ACADEMIC**

		Exhibition. Surgical Department. " Varicose Veins ".
25th	1.00.	Dr. Helliwell. Clinical Lecture. " The Dangers of Modern Anæsthetic Techniques for the Occasional Anæsthetist."
26th	5.00.	Department of Medicine. Professor R. H. S. Thompson. Lecture. " Disorders of Acetyl Choline Metabolism." New Pathology Classroom.
27th	5.00.	X-Ray Meeting. Gordon Museum.
28th	1.00.	Sir John Conybeare. Clinical Lecture. "The Influence of Heredity on Disease."
	2.15.	Department of Medicine. Combined Round. Preclinical Classroom.
29th	10.00.	Dr. Forman. Skin Demonstration. Preclinical Classroom.
31st	1.00.	Dr. MacKeith. Clinical Lecture. " Cancer in Children."
	4.45.	Department of Child Health. Film Show. " Diseases of the Ear, Nose and Throat." " Education of the Deaf." " Triumph over Deafness."

April

		Exhibition. Surgical Department. " Minor Operations in General Practice."
2nd	5.00.	Department of Medicine. Professor R. Knox. Lecture. " Resistance of Micro-Organisms to Drugs.—I."
3rd	1.00.	Mr. Wass. Clinical Lecture. " Enlarged Glands in the Neck."
	5.00.	X-Ray Meeting. Gordon Museum.
4th	1.00.	Dr. Mann. Clinical Lecture.
7th	1.00.	Dr. Moynahan. Clinical Lecture.

March **SPORT**

29th Rugby 1st XV *v.* Exeter. (H.O.P.)

April

2nd Rugby 1st XV *v.* Coventry. (Coventry.)
5th Rugby 1st XV *v.* Richmond. (H.O.P.)

The Lighting of the Eye Wards

By FRANK W. LAW, M.A., M.D., F.R.C.S.

THE brief though enthusiastic reference to the illumination of the newly rebuilt wards, Ruth and Barnabas, in a recent issue prompted the consideration that it might be of interest to describe this in some detail, and to indicate what our aims were and to what extent we had been successful in their achievement.

The geography and previous layout of the wards are too well known to Guy's men to need description. Suffice it to say that the wards offered immense scope for a very real effort at effective illumination, and that the pre-war lighting system was frankly deplorable ; even after rebuilding, the wards need artificial illumination for the best part of the day. Since interior illumination has been a particular interest of mine for some time past, the opportunity for experiment seemed too good to miss ; this was enthusiastically granted me by the Hospital authorities, to whom I am very indebted for placing the arrangements in my hands.

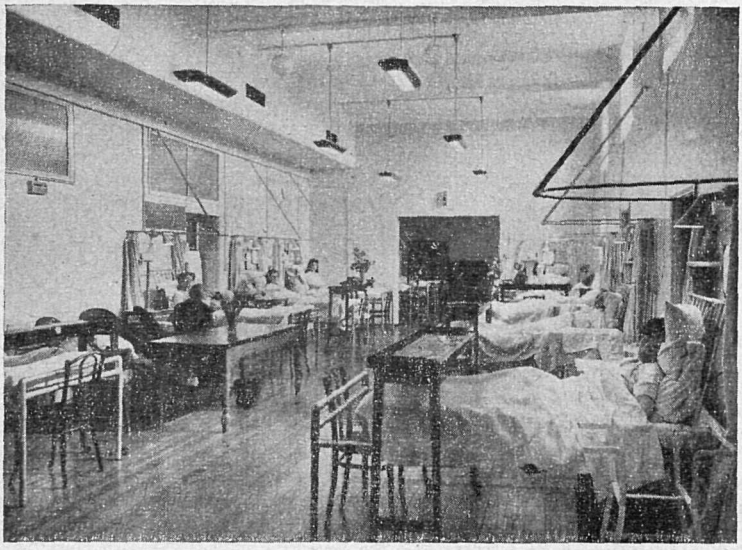

Fig. 1 [*From Law, Trans. Oph. Soc. Vol.* 71, 1951

The typical ward is 48 feet long by 20 feet wide and 15 feet high, and contains 11 beds in the conventional positions. The wall colour is pale peach, the ceilings white, the finish of both satin. The eight fluorescent fittings are referred to as " Atlas (Cat. G.K.4240) Home Lighting ". (Fig. 1.) Each fitting houses four 2-foot 40-watt " Double Life " lamps, the control gear being of a new type incorporating two double glow starters which reduce dimensions and weight. The outside finish finally decided upon was bronze ; the inside is sprayed white. The reflector carries a shallow 030 opal perspex panel, thus ensuring a mixture of diffuse, direct and reflected lighting ; the fittings hang five feet from the ceiling, i.e., at a height of ten feet. (Fig. 2.)

The ever-present necessity for economy forbade the installation of fittings which included a tungsten low power bulb at each end for the purpose of night lighting ; this is therefore provided by low power low level lights which give ample and safe illumination for moving about the wards at night, and are quite unobjectionable to the patients. In case of failure of the main installation, separate tungsten fittings are provided on a different circuit ; in due course one of the two alternative systems will be connected to the Hospital's own current supply, which triple system should cover most contingencies.

Special attention was given to the provision of bed-head lights which, while providing adequate illumination for examination of the patient and for the ordinary uses of reading and sewing, should not be a source of discomfort to the patient opposite. This was finally achieved by screening the bulb by a conical screen set at 45 degrees to the wall. (Fig. 3.) The screens at present

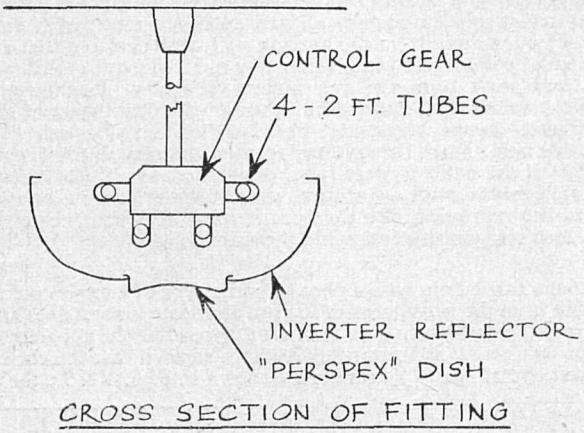

Fig. 2 [*From Law, Trans. Oph. Soc. Vol.* 71, 1951

Fig. 3 [*From Law, Trans. Oph. Soc. Vol.* 71, 1951

fitted fail partially in their object in that a strip of the far under surface is visible to a patient of average height sitting up in the opposite bed ; though this is admittedly not direct light, it comes by first reflection from a surface prepared

for it, and is bright enough to be annoying. The slight modification necessary to correct this consists in removing the bottom half-inch from the posterior half of the screen, and this will be carried out.

The general effect of the installation is now well known to most who frequent the Hospital, and there is no doubt that opinion is favourable. Though the majority of patients took the illumination system for granted (as most people do most systems) specific enquiry elicited approval, much of it enthusiastic. A serious objection arose from the nursing staff, who declared that an estimate of the patients' colour and complexion was most difficult ; this was a valid objection, and arose from the ever-present difficulty of achieving near-to-normal colour values with fluorescent lighting. A substitution of some of the " Warm White " lamps which were first installed by " Daylight " lamps has overcome this objection. On my first entering the new wards I was horrified to note that all the patients were lying prone, and was much relieved by the assurance that this was not a gesture of disgust at the lighting but was, on the other hand, the expression of a therapeutic measure by the obstetric patients who were then temporarily occupying the wards.

Tests

These were carried out with a photo-electric type of autophotometer having a cell remote from the galvanometer so as to eliminate inaccuracies arising from shadows from the operator. The tests were done after the apparatus had been running for 800 hours, and voltmeter readings showed that the correct voltage of 230V. was operating. The results are shown in Figs. 4 & 5 ; the average of

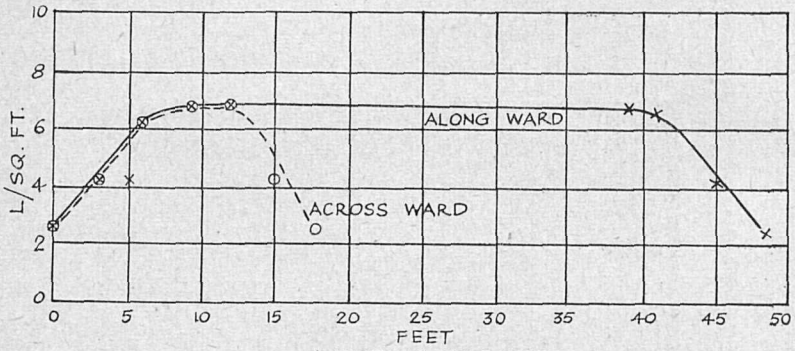

Fig. 4 [*From Law, Trans. Oph. Soc. Vol.* 71, 1951

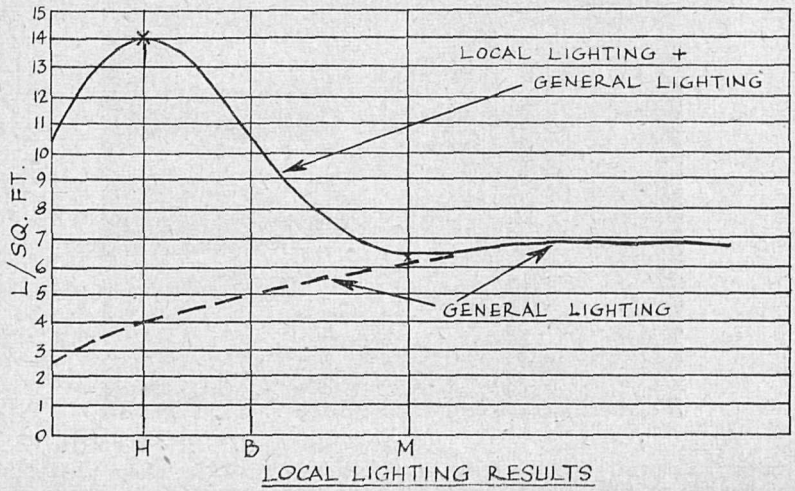

Fig. 5 [*From Law, Trans. Oph. Soc. Vol.* 71, 1951

5·33 Lumens per sq. ft. clearly indicates the necessity for bed-head lights. The result of the tests for the subsidiary lighting is shown in Fig. 5, the letters H., B. and M. indicating respectively the positions of the patient's head, a book held in the usual position, and a point midway down the bed. These tests were carried out with a 25-watt bulb in the fitting, and reveal too low a figure ; substitution of a 40-watt bulb has brought the illumination for reading near to the generally accepted desired level of 20 L./ sq. ft.

Maintenance

Like most of its kind, the fitting is a dust-collector, but possesses the advantage that it retains all the dust it collects, and is readily accessible for cleaning; the reflector is easily detachable and interchangeable, and the perspex dish lifts out. Lamp replacement is very simple ; lamp life is 5,000 operating hours (compared with 1,000 hours for incandescent filament lamps and 2,500 hours for ordinary fluorescent lamps). The luminous efficiency of the " double-life " lamp is identical with that of the ordinary tube.

TABLE I.

ECONOMIC COST COMPARISON

OUTLAY

	Fluorescent fitting as used.	*Equivalent fitting in incandescent.*
Price of Fittings (including advances and Purchase Tax)	£12 11*s.* 8*d.*	£5 0*s.* 0*d.*
Light Output in lumens	4 × 1,340 = 5,360	1 × 2,700
Number of Fittings for Equivalent Result	1	2
Equivalent Cost	£12 11*s.* 8*d.*	£10 0*s.* 0*d.*
Lamp Replacemfnts	£2 19*s.* 0*d.* per 5,000 hours	6*s.* 8*d.* per 1,000 hours
Hours Use per annum	6,000 hours	6,000 hours
Equivalent Electrical Load	200 watts	400 watts

RUNNING COSTS

Cost of electrical energy per annum at 2*d.* per unit	$\frac{200 \times 6{,}000 \times 2d.}{1{,}000}$ = £10 0*s.* 0*d.*	$\frac{400 \times 6{,}000 \times 2d.}{1{,}000}$ = £20 0*s.* 0*d.*
Costs of lamp replacements per annum	$\frac{6{,}000 \times £2\ 19s.\ 0d.}{5{,}000}$ = £3 10*s.* 0*d.*	$\frac{6{,}000 \times 6s.\ 8d.}{1{,}000}$ = £2 0*s.* 0*d.*
Total Operating Cost	£13 10*s.* 0*d.*	£22 0*s.* 0*d.*
Saving per annum	£8 10*s.* 0*d.* per fitting	

Economics

It must be remembered that indirect lighting is not the cheapest form of lighting, and therefore a comparison must involve an incandescent fitting of similar effect; direct lighting would be cheaper, but the most desirable features of this installation would be lost. For an equivalent light output twice as many incandescent fittings would be necessary, with corresponding increase in the cost of wiring, fitting, and maintenance. The present fittings are more costly to instal than opal type incandescent fittings ; in spite of this the overall economics favour fluorescent lighting. The comparative costs are summarised in Table I ; Table II shows at what number of operating hours the cost becomes equal for the two systems compared, ignoring any advantages claimed for either. The economic balance is seen to be reached at 175 hours per annum ; this is a very low figure, and all consumption in excess of this will operate to the economic advantage of the fluorescent system.

TABLE II.

ECONOMIC OPERATION

Assume that the fittings last for 10 years, then annual cost of fittings	£1 5*s.* 2*d.*	£1 0*s.* 0*d.*
Electrical costs for 175 hours per annum	5*s.* 10*d.*	11*s.* 8*d.*
Lamp replacement cost	2*s.* 1*d.*	1*s.* 5*d*
Total annual cost	£1 13*s.* 1*d.*	£1 13*s.* 1*d.*

The system represents a departure from custom, and if regarded as an experiment may, I submit, be deemed a successful one. I am naturally enthusiastic about it, and shall judge the measure of its success and assess the opinion of others upon it by noting what systems are adopted in other parts of the Hospital as these are built or rebuilt.

The fittings were supplied and the tests carried out by Thorn Electrical Industries Ltd., who had the advantage of the advice of Mr. H. C. Weston, Past President of the Illuminating Engineering Society. I am indebted to them for technical details. It is also a pleasure to express to them, and to the Works Department of the Hospital, my appreciation of their tolerant attitude towards my views and requests.

Correspondence

Sister Florence Taylor

SIR,—A presentation is to be made to Sister Florence Taylor, who will shortly be retiring after more than 30 years at Guy's.

Many of your readers who are past Guy's nurses may wish to be associated with this presentation.

Donations may be sent to Sister Dorothy Holland, School of Nursing, Guy's Hospital, and will be acknowledged.

Yours, etc.,

DOROTHY L. HOLLAND.

Ward Clerks' Reports

SIR,—I was surprised to read in Passim your criticism of the manner in which many Ward Reports are completed today. Somehow one had the idea that efficiency in a teaching hospital was progressive but, as you have noticed, we did better than that in the old days.

There may be one reason for this. There was an appointment of Clinical Assistant in the Medical Wards, which first saw the light in 1897. This was for senior students or possibly newly qualified men, and their function was to act as guide, counsellor and friend to the ward clerk, teaching him how to examine a patient and how to write a report.

As a senior student reading for finals, I was in the first batch appointed and was allotted to " Freddie " Taylor's firm.

Here were great opportunities ; to teach and, by teaching, to learn. On the morning round one could instil a methodical examination, with everything done in the proper order, so that nothing could be missed. Similar method and routine was asked for in the writing-up ; no particulars to be omitted but no unnecessary information, no verbiage ; if possible not a single unnecessary word, and we tried to be legible and grammatical.

We discussed the case according to our lights, but diagnosis, treatment and prognosis were not talked about in the patient's hearing unless very favourable.

We were thus tidied up for the visiting physician's afternoon round, when we had fresh light and an expert view on the problems we had been discussing. Everything was most satisfactory and very useful to all concerned.

If such an appointment were in existence today one cannot think that your strictures would have been necessary.

Yours, etc.,

P. W. MOORE,

43, Belsize Road,
Worthing, Sussex.

Reviews

The Tissues of the Body. By W. E. LE GROS CLARK. 3rd Edition. Oxford. *Price* 30*s.*

Professor Le Gros Clark aimed in the first edition of this book to be both informative and intellectually stimulating. How well he succeeded all who have read that edition will know. The third edition shows no major changes. Each of the tissues of the body is discussed in turn, the reader being given glimpses of the advancing front of research into both structural and functional problems. It is indeed advances in our knowledge, rather than a rearrangement of existing knowledge, which have necessitated this new edition. Some figures have been greatly improved by redrawing and new figures have been added, among them some notable examples of electron microscopy.

This book is an outstanding contribution to the re-orientation in the teaching of anatomy which has occurred in most schools over a period of years.

G.A.T.

An Introduction to Medicine for Nurses. By PATRICA ASHER, M.D., M.R.C.P. 2nd Edition. *Price* 25*s.*

The second edition of this useful and comprehensive book more than maintains the high standard of the first. The new sections on children's diseases, infectious diseases and diseases of nose, throat and mouth, being particularly welcome. The inclusion of case histories makes reading interesting as well as instructive. In addition the book has the advantage of having an excellent index and helpful illustrations.

It seems a pity that the good production of the book should put the price rather high for the average student nurse who may hesitate to pay 25*s.* for an introduction to medicine.

N.C.

Anæsthetics and Anæsthesia for Nurses. By W. J. FINNIE. (A "Nursing Mirror" Publication.) *Price* 7*s.* 6*d.*

This short book covers most of the practical points which a nurse should know about pre-operative treatment and the care of the patient (and the anæsthetist!) in the operating theatre. In addition there are descriptions of anæsthetic techniques and apparatus. Although one cannot agree with the author's treatment of intra-arterial thiopentone, this book can be read with great advantage by surgical ward-clerks as well as by nurses. D.M.C.

Clinical Hat Pegs for Students and Graduates. By R. J. WILLAN. Heinemann. *Price* 12*s.* 6*d.*

This little book is devoted largely to the teaching of surgery by "Hat Pegs", or mnemonics. This method of learning is one which appeals to many and to such the book is commended. However, the difficulty of a mnemonic is to remember it, and having done so, to remember its meaning, and maybe confusing to those who do not take kindly to learning, by rote, long lists of symptoms, signs and diseases. P.L.

Handbook of Surgery. By LEDLIC and HARMER. Baillière, Tindall & Cox. *Price* 21*s.*

This little book represents an attempt to present, in shortened form, the subject of surgery to the undergraduate. It thus joins the ranks of the various synopses and handbooks already available to the student.

It is arranged in the clinical fashion, the first few chapters being to devoted general matters and the remainder to particular systems, and is rendered readable by its presentation, arrangement, clear print and diagrams.

The reviewer feels that this, like all such works, will have its supporters but that no such volume can, by its nature, become a best seller. It is a book which will be found most useful for those who prefer their surgical reading to be in a short and digestible form, but it must be borne in mind that in such works there is no room for discussion and controversy. P.L.

Hygiene, Infectious Diseases and Dietetics. By DENNIS H. GEFFEN and SUSAN TRACY. Longmans. *Price* 9*s.* 6*d.*

This is a book from which one could learn readily because of its interesting detail and well-placed emphasis. Nevertheless, I hesitate to recommend it to nurses—my reason, a single one. Without reserve, the authors condemn the practice of nurses handling bed-pans. Without reserve, I oppose the idea of relegating this duty even "to *well-trained* domestic staff".

One wonders what, other than nursing experience, could train anyone to take adequate care against cross infection or to recognise and appropriately deal with signs of danger, signs of pain or emotional disturbance, so often accompanying the use of the bed-pan. Surely, a good relationship would be impossible between the nurse and the patient who would inevitably feel this duty to be below the nurse's dignity.

That every aspect of the patient's well-being is the nurse's care, is a principle of nursing one would not choose to undermine. C.Y.

Sport

RUGBY

Guy's *v.* Llanelly

At Llanelly. Result—Lost 5—19

8th March, 1952

For the visit to Llanelly Guy's were forced to make several changes owing to injuries and impending examinations. There were two changes behind the scrum and three in the pack.

Apart from rare occasions when the ball was taken through by the forwards, Guy's did not have many opportunities in attack, most of the attacking being done by Llanelly following a larger share of the ball from scrums and lines-out. The Llanelly forwards (as Aberavon did three weeks previously) were content to give the ball to their threequarters all the time and the home side continually gained ground by straight running and quick passing. The Guy's three-quarters indulged in too much shadow tackling which proved fatal and Llanelly scored three tries, all by threequarters, in the first half.

The spectators at Stradey Park not only witnessed a game but many who had brought portable radio sets listened in to the Ireland *v.* Wales match in Dublin at the same time. At first it was somewhat disconcerting to players—during a quiet patch in the Llanelly *v.* Guy's game—to hear a burst of applause from the stand when Wales were in the process of defeating Ireland!

The feature of the second half was the numerous stoppages for injuries to Llanelly players. Guy's reduced the Llanelly lead when, following a forward rush to the Llanelly line, D. Clark went over for a try and Howells converted. When it seemed that the score would remain 9–5, Llanelly backs added two more tries under the posts.

Again Guy's were shown the art of playing Rugby at top speed with good backing up by forwards and backs. After two visits to Wales it is easy to see how the standard of Club Rugby down there far exceeds anything in England and how the Welsh National XV has again won the Triple Crown.

Team : W. J. Howells ; E. O. James, G. W. Hackett, J. W. Osborn, J. C. Kingston ; G. D. Thomas, G. L. S. Rankin ; D. C. Lee, D. L. H. Clark, D. K. Fairweather, H. Griffiths, H. C. Meredith, B. J. Cremin, J. W. Kirkbride, D. P. Honey.

Guy's *v.* Gloucester

At H.O.P. Result—Lost 3—18
15th March, 1952

Fine sunny weather with a slight breeze and a dry, dusty ground, were the conditions for this game with Gloucester. Guy's fielded the strongest side possible but were unfortunate to lose the services of Meredith with a damaged shoulder early in the game.

In the first half Guy's played the better football and certainly looked the better side. When the forwards took it upon themselves to kick up field they frequently took play to the Gloucester line. The backs looked dangerous when they had the ball but tended to throw away any advantage gained by kicking at the wrong moment and quite often too far, thus giving the Gloucester full-back time to clear. Howells gave Guy's the lead when he fielded a wild kick 40 yards out and dropped a capital goal.

Shortly after half time Gloucester drew level when their full-back, deputising for the England full back, Hook, kicked a good penalty goal from 35 yards. Gloucester scored three snap tries; all of which were converted, and the trend of the game was completely altered. Guy's certainly missed Meredith as two of the Gloucester tries were the result of there being no lock forward. Guy's fought back but could not score. After such a game one is tempted to ask, " Will the fortunes of the team never change ? "

Team : W. J. Howells ; E. O. James, T. Smith, J. W. Osborn, G. D. Thomas ; L. P. Balfour Lynn, G. L. S. Rankin ; J. W. Kirkbride, N. A. Labuschagne, D. K. Fairweather, J. C. Burt, C. T. M. Wilson, B. J. Cremin, H. C. Meredith, D. P. Honey.

Congratulations to Labuschagne who, in his first full season of Club Rugby in England, hooked for Middlesex in the County Championship Final at Twickenham on Saturday, 8th March.

HOCKEY

Inter-Hospitals' Cup Final
Guy's *v.* St. Thomas'

At Teddington. Result—Won 4—2

Once more Guy's met their old rivals, St. Thomas' Hospital, determined to reverse the outcome of last year's final when they were defeated by one goal to nothing on this same ground.

The conditions were ideal. The pitch was perfect, the weather excellent—a beautiful spring afternoon which tempted a fair-sized crowd to cheer their respective teams to victory.

The St. Thomas' captain won the toss and elected to play into the sun. From the bully off, they attacked with great determination, but the Guy's defence stood solid. Guy's, however, soon settled down and the half-back line began to come into its own, blocking the attacks of the opposing forward line. After some good midfield work, the ball went out to the right wing. A quick pass into the circle found the inside right unmarked, and Hall made sure of the first goal with a good shot which left the goalkeeper no chance.

The outlook of the game now changed. Guy's had now lost their Cup nerves and were on top. The forward line made a number of very dangerous raids on the opposing goal. Only heroic work by the St. Thomas' goalkeeper prevented them adding to the score.

It was from a scramble following one of these attacks that Guy's increased their lead. Blake got the ball in a packed circle and a St. Thomas' defender, in a desperate attempt to save the shot, deflected the ball past his own goalkeeper

St. Thomas' now made a desperate attempt to reduce Guy's lead and a good left wing movement succeeded in drawing the defence, giving the inside left an opportunity which he took with cool determination, scoring a fine goal.

After the half-time interval Blake received a good pass from the left wing and, after eluding the full back, flicked the ball well and truly into the left hand corner of the net.

The St. Thomas' forwards were not disheartened and they attacked with grim determination and finally scored a second goal to make the score 3–2.

The last ten minutes of the game brought out the best hockey on both sides. Then came the best goal of the match. Blake received a pass on the 25-yard line ; he ran to the right ; drew the defence, a quick pass to the left found Millar unmarked and " bang "—a cannon-ball, first time shot which left the St. Thomas' goalkeeper unsighted.

St. Thomas' attacked desperately but the defence withstood the onslaught without flinching. Then, amidst the cheering of the spectators, the final whistle went, and the Hockey Cup had returned once again to the Borough after a two-year absence.

So ended a thrilling series in the four rounds of which Guy's have scored 15 goals with only 3 scored against them.

Team : C. Bishop ; R. J. Park, E. A. Murray ; C. F. M. Robinson, D. Linahan (Capt.), W. Vans Agnew ; D. V. Duckworth, I. J. Millar, D. E. Blake, J. J. Hall, J. Cox.

Inter-Hospitals' Junior Cup Final
Guy's *v.* St. Thomas'

At Teddington. Result—Won 4—2
12th March, 1952

It was both a privilege and a pleasure to play the final of the Junior Hospitals' Cup on St. Mary's ground at Teddington.

Following a breakaway goal by St. Thomas' after five minutes' play, there was no further scoring duringthe first half, although both goals were frequently in danger.

Five minutes after the interval St. Thomas' scored again. Guy's pressed strongly and Gibbons scored a goal from a good pass by Meyer following a corner. From the centre bully the ball passed to Meyer and Belcher on the left wing and was centred for Cautley, amid considerable touchline excitement, to score the equalising goal. The defence was now clearing more quickly and was covering well. Meyer put Guy's ahead with a first-class shot from a short corner and Cautley made the result certain with a fine solo effort.

This victory was a fitting climax to the enthusiasm and the ability that the Hospital 2nd XI has shown this season.

Team : G. F. Marne ; N. J. Knight, J. Metcalf ; W. R. O. Eggington, M. Rigg, P. J. Willard ; L. W. Belcher, H. C. F. Meyer, J. M. Cautley, E. R. Gibbons, R. F. Hodson.

Hospital Information, etc.

PASS LIST

UNIVERSITY OF CAMBRIDGE

M.Chir.

R. N. Ticehurst

UNIVERSITY OF LONDON

Diploma in Medical Radiology (Diagnosis)

Part I

February, 1952

A. S. Bligh I. A. H. Munro I. Yentis

UNIVERSITY OF OXFORD

Doctor of Medicine

A. Batty-Shaw

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Final Examination, Part I

January, 1952

A. Gibson

F.R.C.S.

Primary Examination

C. P. Mills W. F. W. Southwood

N. Thompson

SOCIETY OF APOTHECARIES OF LONDON

Final Examination

January, 1952

Surgery

G. L. Shaw

Pathology, Bacteriology and Forensic Medicine

N. P. Burns H. St. J. Mansbridge

J. K. H. Culverhouse G. L. Shaw

Medicine

*F. D'U. Burgess

Midwifery

P. M. Hardiman G. L. Shaw

H. St. J. Mansbridge K. G. Somers-de Haney

Final Examination

February, 1952

Surgery

*N. P. Burns *H. St. J. Mansbridge

*K. G. Somers-de Haney

Pathology, Bacteriology and Forensic Medicine

R. D. France

Medicine

R. D. France *H. St. J. Mansbridge

Midwifery

C. P. B. Brook

* Have completed the examination

UNIVERSITY OF LONDON

APPOINTMENT OF EXAMINERS

The following have been appointed as Examiners for Medical Degrees in 1952 :—

Laryngology, Otology and Rhinology

Mr. R. D. Owen Mr. R. J. Cann

APPOINTMENTS

Dr. S. H. Llewellyn Smith has been appointed Consultant Physician, part-time, to the *Lewisham Group of Hospitals.*

Capt. D. J. Chapman, Radiologist, Canadian R.A.M.C.

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL

Southwark Bridge Road, London, S.E.1

The unveiling of a plaque to the memory of the late Mr. W. E. Tanner will take place at this Hospital on Wednesday, 2nd April, 1952, at 12.15 p.m. Will those wishing to attend please notify the Hospital Secretary.

CHANGES OF ADDRESS

Capt. D. J. Chapman, Kingston Military Barracks, Barriefield, Kingston, Ontario, Canada.

Douglas S. Clogg, L.D.S., R.C.S., 121, Harley Street, London, W.1. Tel. : Welbeck 6818.

PAPERS BY GUY'S MEN

Fry, John. Familial Erythema Nodosum. *Brit. med. J.*, 1952, i, 529.

Harkness, A. H. Non-venereal Causes of Urethritis. *Brit. Encycl. Med. Pract., Int. Suppl. No.* 114, March, 1952.

Kettle, M. A. The Orthodontic Treatment of Cleft Palate Using the Harvold Principles. *Dent. Rec.*, 1952, **72**, 32.

McKeown, Thomas. Discussion on Undergraduate Teaching of Social and Preventive Medicine. *Proc. R. Soc. Med.*, 1952, **45**, 113.

Mayer, J. H. Adolescent Kyphosis. *Med. Pr.*, 1952, **227**, 246.

BIRTHS

EL SHINNAWI.—On February 5th, 1952, at The Barratt's Home, Northampton, to Norma (née Harding), wife of M. M. El Shinnawi, M.R.C.S., L.R.C.P.—a daughter (Jennifer Zenab) and sister to Jane Hanim.

FORRESTER.—On March 7th, 1952, at the Richmond Nursing Home, Bexhill-on-Sea, to Anne (née Brooking), wife of A. T. Forrester, M.B., B.S.—a son (Robert Alexander).

HUNTLEY.—On March 6th, 1952, at the West Middlesex Hospital, to Phyl (née Griffiths), wife of A. Martin Huntley, M.R.C.S., L.R.C.P., of Westbrook House, 134, Bath Road, Hounslow—a brother for Richard.

RICHARDS.—On March 7th, 1952, to Mollie (née Horder), wife of L. G. Richards, B.D.S. —a daughter (Catherine Margaret).

MARRIAGE

GALBRAITH—FLOOD.—On March 12th at St. John's Church, Hillingdon, Middlesex, Nicol Spence Galbraith, M.B., B.S., of Washington, Sussex, to Zina-Mary Flood, of Uxbridge, Middlesex.

DEATHS

BROWN.—On March 13th, 1952, at the British Military Hospital, Kamunting, Malaya, Robert MacLeish Brown, M.B., B.S., Capt., R.A.M.C. (aged 25 years), younger son of Mr. and Mrs. E. C. J. Brown, Gowrie, Rustington, Sussex.

CURLE.—On March, 14th, 1952, Cyril Lister Curle, L.D.S., R.C.S. Eng. 1916, L.R.C.P. 1919, of 53, Stirling Road, Bournemouth, Hants.

MUNDEN.—On March 8th, 1952, Marwood Mintern Munden, M.R.C.S., L.R.C.P., of Eastcombe, Stroud, Glos.

EDS. { R.G. P.A.Z.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

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PASSIM

TEN o'clock in the morning is a moment of some importance at Guy's Hospital. True, its advent is as unheralded by chime or stroke as that of any other hour, and its arrival is, more often than not, merely recorded during a brief glance at a watch—and one such glance on a busy morning tends to be as good, or as uninformative, as another. But ten o'clock is, nevertheless, a significant moment in the day. At this time the first morning lecture is ended. At this time the wards are polished and tidy, ready (with what has sometimes seemed to be a faint air of expectant resignation) to admit their daily student population. At this time the ephemeral reign of Morning Coffee may justly be considered to begin.

Few will deny the powerful influence of this agreeable beverage on our daily lives. In 1652 when that remarkable Greek youth, Pasqua Rosee, first advertised his coffee in London as " a simple innocent thing," he could hardly have envisaged the scope of the development three centuries would bring. Innocent, maybe. Simple, no. In the two hours before noon the words, " Gone to coffee " given as answer to a person's whereabouts, have a peculiarly mysterious ring. They are pregnant with twenty distinct possibilities. At any other time in the day the phrase scarcely stirs the imagination at all. No other beverage but coffee can arrogate to itself such a wealth of implication in three similar words. Does " Gone to milk " stimulate any speculation as to the location of Jones ? " Gone to beer " is as meaningless in common parlance as " Gone to lemonade " or " soup." Yet all are drinks which may claim a place in the dietary round comparable to that occupied by coffee. " Gone to tea " alone makes more sense. We can visualise the surroundings of someone who has gone there. The words summon to the imagination an unmistakable vista of cups, toast and jam—all potentially unexciting, if not downright dull.

But " Coffee " ? More insubstantial by far. Even to suggest, during her brief morning reign, an intention of drinking at all is to be guilty of a dangerous assumption. There is no necessity to do any such thing. Indeed one is tempted to inquire whether the standard of coffee available in these days of scarcity and expense still justifies a desire to consume it. None the less, at any time between ten and twelve o'clock it may yet be a delightful drink. Morning coffee can, equally, be an escape—a brief ten minutes leaning over the top balcony of Guy's House when the floor of the operating theatre proves too much for swollen feet : a few pages in the illustrated papers, or any other of eighteen things you care to name. Enchanting as an affectionate encounter, or " blacke as soote, and tasting not much unlike it " we remain faithful to our Coffee in the hours before noon.

Miss Florence Taylor has retired after twenty-seven years' work at Guy's. An appreciation will be found later in this issue and the *Gazette* sends the good wishes of everyone for a long, happy and active retirement to " Sister Florence ". Amongst her many activities was included service on the *Gazette* Committee and her presence there will be greatly missed.

Obituary

CYRIL LISTER CURLE

CYRIL LISTER CURLE passed away suddenly on 14th March, 1952, at his home in Bournemouth. He will be remembered by many who were at Guy's before and during the First World War. As an athlete he was prominent in field events and also as a threequarter on the Rugby field playing in the winning side of the Cup Final, 1912/13.

Having qualified L.R.C.P., L.D.S., R.C.S., he spent some years in London with the L.C.C. as a Dental Surgeon and later went into partnership with a Guy's man at Bournemouth and soon built up a successful practice. He now turned his attention to hockey and represented his County on several occasions, as well as being chosen for international trials.

Curle numbered amongst his friends a number of Guy's men who had met regularly for the past twenty-five years for Whitsun week-end in the Cotswolds.

Those of us who met him regularly were grieved a year or two ago to learn that he was unwell, but after a successful operation at Guy's he resumed his practice—much to the delight of his friends and patients and his sudden death was unexpected.

It can be truly said of him that he was a good sportsman, a loyal colleague and a friend of many who will miss his good company.

To his wife and family we express our sincere sympathy. G.McK.T.

ROBERT MACLEISH BROWN

THE sad news of Robert Brown's death while on active service in Malaya has come as a great shock to all who knew him.

Robert was the younger son of Mr. and Mrs. E. C. Brown of "Gowrie," Rustington, Sussex. He came to Guy's in October, 1944, from Worthing High School, where he had an excellent school record and passed the London University Higher Schools Certificate thus exempting him from the first M.B.

At Guy's he was an exceptional student and distinguished himselt by being bracketed equal first for the Beaney Prize in Pathology in 1947. He qualified in April, 1949, M.B., B.S. (London), and M.R.C.S., L.R.C.P., and then took up duties as House Surgeon at the Ipswich and East Suffolk Hospital. He returned to Guy's in December, 1949, to become House Surgeon to the Thoracic Unit. Following this he started his National Military Service in the R.A.M.C. and went out to Malaya in September, 1950, where he was attached to the 13th/18th Royal Hussars and later to the 1st Suffolk Regiment.

When the jungle warfare started in Perak some two months ago he was seconded to the Special Air Service Regiment (Malayan Scouts). Whilst on these duties with the ground forces he developed a high fever and was flown out by helicopter to the British Military Hospital at Kamunting where he was found to be seriously ill with amœbic hepatitis. By March 1st he had pulled through the danger period and was soon writing home saying that it was only a matter of convalescence. However, on March 12th he had a sudden relapse and died on the following day.

Robert was perhaps rather retiring to those who did not know him well, for fundamentally he was rather shy and modest. Those who knew him well found him most kind and thoughtful and the best of companions. He had the knack that some people have of being able to work quickly and efficiently but yet was never hurried, and no matter what emergency arose he was never ruffled or at a loss. His patients, to whom he gave all his care and attention, held him in high esteem.

He was very happy as a houseman at Guy's and was looking forward to returning after his national service to study for the F.R.C.S. Robert will be missed as a doctor and a friend.

It is tragic that such a promising career should end at such an early age and our deepest sympathy goes to his parents and family. G.W.S.

An Appreciation

MISS FLORENCE TAYLOR

Miss Taylor, Sister Florence, has left the Nurses' Training School. As a personality she will be much missed for she was always "round and about." She had a happy knack of getting on with all and sundry and in matters great and small generally succeeding in getting her own way through sheer dogged persistence. It was a right and good way where the training of nurses was concerned. She has never failed to pull her weight and has done sound constructive work for Guy's nurses for 27 years.

Miss Taylor began her career at Queen Mary's Hospital, Carshalton, where she trained as a sick children's nurse from 1911–14. There also she qualified and in 1915 became a member of the Incorporated Society of Trained Masseuses (the forerunner of the Chartered Society of Physiotherapists). From Carshalton she came to Guy's where she obtained certificates in General Nursing and Midwifery in the years 1916–20. She spent a short time in private nursing from the Guy's Trained Nurses' Institute which was then established at No. 14, St. Thomas's Street. Her next three years were spent at the Norfolk and Norwich Hospital where she held posts as ward sister and night superintendent and obtained a certificate of housekeeping. By 1925, when Miss Taylor returned to Guy's as holiday sister and night superintendent, she had qualifications and experience behind her, gained largely by her own brains, foresight and hard work. No inducements in the way of grants, luxury amenities and generous salaries were available in those days (Guy's probationers earned £8, £12 and £16 in the three years respectively). It was a hard way of training but there was no other and it had its advantages.

After becoming night superintendent for a year, Sister Florence spent four years in Matron's Office and during that time obtained the Diploma in Nursing of the University of London. Thus in 1930 she was well equipped for work in the Teaching Department which had developed rapidly since the introduction of State Registration by Examination in 1924. This work and the interests allied to it absorbed all Miss Taylor's energies for 22 years including the war years when she was tutor in charge of the Guy's nurses' unit at Farnborough and the Wildernesse.

Sister Florence has throughout these years served on many committees, the Women's Training Schools' Council and Education Committee of the Nursing School, the Chapel and *Gazette* Committees and the Council of the Nurses' League. Outside the hospital many professional organisations have valued her services. She is still a member of the Council of the Royal College of Nursing and of the Education Committee of the College and for many years was Chairman of the Sister Tutor Section. She was a member of the Rushcliffe Committee on Nurses' Salaries and for years has served on the Board of Examiners of the General Nursing Council and the British Orthopædic Association. One could add to this list but it were better to try to explain what impact her many-sided activities have had on Guy's nurses and on the nursing profession.

In the hospital we knew Sister Florence as a determined and single-minded educationalist. In dealing with the individual she was strict and demanded a high standard of work and conduct. The " delinquent " knew she could not " get away with it " but she also knew that justice would be done and that it would be tempered with mercy. She was an enterprising teacher, full of nursing knowledge and wisdom, and with a sense of humour and ready wit which could always be depended upon to raise a laugh whether on the lecture platform or on some social occasion. Indeed social activities could not be run without Sister Florence. She was frequently the organiser of debates, brains-trusts, sales of work and in pre-war years of variety concerts given by the nurses. A piece of work begun, of whatever kind, would be completed with no ragged ends left.

In consultation and committee she is courageous, clear-headed and consistent. She has gone into the fracas of professional controversy armed and well prepared and has been no mean adversary. With her ideals of nurses' training she is too practical and understanding of conditions not to compromise and has managed to cut her coat according to her cloth.

It is, of course, customary when our colleagues leave the hospital to speed them on their way with such a message of appreciation and farewell. But here we would have Sister Florence know how sincere we are in this appreciation of her work and of the spirit in which she has done it. As her colleague for 20 happy years in the Training School and speaking on behalf of many other colleagues, we send our best wishes for many years of well-deserved relaxation and good health in which to enjoy all those delights which no doubt her fertile brain is already planning.

We hope that in the future she will still be busying herself about Guy's and about the Royal College of Nursing and with this happier thought in mind we now say, " Au Revoir." H.M.G.

* * * *

It will not be easy for the many members of our large " Guy's Family " to visualise the School of Nursing without Sister Florence.

Through her vital and yet unassuming personality, her spontaneous friendliness, keen sense of humour, and above all that astuteness and great perception which was hers, she befriended the newcomer who, feeling frightened, lonely and awed by the " greatness " of Guy's, was soon made to feel part of that " greatness," which immediately gave her self-confidence and a great pride.

To the despondent, dispirited student she was a sure shield against all onslaughts through her wisdom. Her advice would give fresh incentive and encouragement and to the " rebel " a feeling of humility and yet stability. She had neither time nor tolerance for the slacker, who quickly mended her ways when she found she was not the friend of Sister Florence—for who was not her friend ? She had that very happy knack of picking out and encouraging the best qualities in her students, which made her appear as one of themselves, and endeared her to them.

Can it be wondered at that the large Guy's unit which, at the beginning of the war was evacuated to The County Hospital at Farnborough in Kent, was overjoyed at the news that Sister Florence would be joining them ?

This news had a really dramatic effect upon all the members of the unit, whose feelings upon leaving Guy's were already of great depression and hopelessness, and whose morale and confidence was even more greatly shattered by the standards of administration, nursing care and nurse training which they met in their new " home."

Sister Florence descended upon the " Unit " in her usual friendly and unassuming way, arriving from Guy's in " Molly," her Austin 7, piled high inside with the personal wants of members of the unit—bags of laundry, cushions, books, electric fires, irons, kettles, ward equipment, teaching equipment, and even eiderdowns and blankets. Amid a crowd of chattering and laughing Sisters and student nurses, " Molly " was unloaded. During the whole time of unloading, Sisters and student nurses were pouring out some of their fears and troubles in their new home and the many difficult and frustrating

situations which faced them. Sister Florence listened and teased them in her own inimitable way. Out of the chattering and hubbub came Sister Florence's clear-cut and concise plans—" We must have our own wards, and we must continue to carry out our own Guy's training scheme "—and we did.

It was through her leadership, experience and wisdom that we planned and got our way. When we were given a 300-bedded hutment to open for military casualities, Sister Florence helped us in a hundred ways to get it ready. I can remember her unpacking cases of ward equipment which were sometimes bigger than herself, setting lockers ready in another ward, marking ward linen although embroidery was not her special line. When all was ready nothing would satisfy except that Sister Florence should come and see the wards and pass judgment. Competition was keen and Sister Florence with her rare tact and diplomacy turned it into a very happy event.

Our first casualties to this " miniature Guy's " came from Dunkirk and arrived soon after midnight. Sister Florence, I remember, was with us to receive them, and made herself busy giving round tea, feeding the helpless, lighting a cigarette here and there, dressing wounds, getting patients ready for operation, and carrying out any of the ward sisters' instructions to a detail. At the same time she gave of her own to the students, so creating in this new place that atmosphere of service and team-spirit which is so much Guy's.

On another memorable occasion, as we were sitting quietly together in her office in the Nurses' House, three explosions occurred. Sister Florence quickly donned her tin hat, and with her gas mask slung across her shoulder made her way across to the hospital, stumbling and falling over uneven ground in the blackout. The hospital had been hit and smoke and dust seemed to issue from everywhere, and it was pouring with rain. We made our way to the nearest block and here, on reaching the top floor, another explosion occurred. I had a sight of Sister Florence diving under the first bed, just inside the ward, taking the patient with her.

She was a tower of strength and thoughtfulness to everyone on that most evil night, allaying the patients' anxieties and the fears of the youngest student nurses, with her calm confidence and quiet humour.

Interspersed with work and the experiences of the evacuation, were many very happy occasions made possible by " Molly ". We made trips to Guy's to fetch things, out into the country for picnics, to snatch a breath of fresh air, and to enjoy the sights and beauties of the countryside. We were all most grateful to Sister Florence for all these joys.

She fulfilled a triple rôle during these years, that of Sister Tutor, chauffeur and carrier, and " Molly " always responded nobly to any work required of her, moving nurses to their billets or as an ambulance bringing in a sick nurse to the hospital. They were memorable years that we spent at Farnborough, inspired by Sister Florence to service, loyalty and goodwill. So we wish her many years of much happiness and good health in her retirement. C.B.

* * * *

Practically every member of Guy's nursing staff has, at some time during her career, passed through the hands of Sister Florence Taylor—(" Flo," as she is affectionately called behind her back). We are very grateful to her for her teaching, but we are equally grateful to her for her ever ready interest in all nursing activities, for her staunch support, and for her loyalty and pride in our traditions.

Our loss, by her retirement, is tempered by the knowledge that she is still to remain active in nursing affairs and is living so near to Guy's that we intend to see her often.

There is no need to say " goodbye "—only to wish her every happiness in the years to come. A.F.

Psychiatry Today—III

METHODS OF BRIEF PSYCHOTHERAPY

(Extracts from Chapter VII)

By DAVID STAFFORD-CLARK, M.D., M.R.C.P., D.P.M.

ALL brief methods of analytical psychotherapy depend for their brevity upon the reduction of two main elements which normally comprise a considerable part of psychoanalytic procedure, and absorb much of the time involved. These two elements are the repetition involved in working through problems against resistance, while relying solely upon the patient's free associations to bring these problems back into the field of exploration every time they are evaded or shelved, and also the time and effort consumed in dealing with comparatively irrelevant material, and in coming to the point in material which is unquestionably important, but too emotionally charged to be readily handled by the patient.

The essence of all methods of brief psychotherapy is therefore in some way to select those areas of the patient's life which are most relevant to the problems he faces and the symptoms he displays, and having selected them, to focus the entire procedure upon them until they have been dealt with and the necessary changes thereby effected in the mental life of the patient. Techniques of this kind are on the whole harder to acquire and to practise successfully even than the methods of full-scale analysis ; there are a number in existence, but only a few have proved their worth. The need for them, provided that they are consistent and dependable in competent hands, is unquestionable.

The earliest technique of this kind was that used by Freud himself when he was working originally with Professor Breuer. In fact it preceded the development of the standard procedure of analysis produced by free associations on the part of the patient, and was abandoned by Freud in favour of free association because he found the latter method more comprehensive and therefore more effective for full analysis. This earlier method rested upon the use of hypnosis.

Hypnosis, as we have seen, was widely used at the Salpétrière when Freud was a pupil there to produce and remove states of altered consciousness by suggestion. Freud discovered that under its influence patients were sometimes able to remember and disclose emotions and experiences of which they had no knowledge in consciousness. Moreover, after such revelation, they usually lost many of their symptoms, and might even become well if the emotionally charged material were retained in consciousness after hypnosis had been terminated.

It is one of the indications of Freud's vision and genius that he perceived what nobody else had realised before, namely that the important thing about the success of this treatment was the patient's ability to recover lost memories and feelings, and to accept them afterwards, rather than the particular procedure whereby this was achieved. This was all the more a considerable feat since the obvious drama and spectacular nature of hypnotic states had hitherto obsessed the attention of everyone at the Salpétrière.

When Freud discovered that by no means all patients could co-operate in hypnosis and that certain others were unable to accept or integrate the material uncovered during sessions once those sessions were concluded, he abandoned hypnosis completely and went to work with free association. The technique of orthodox analysis is still built exclusively upon this latter method. However, in recent years the increasingly recognised need for some short cut in analytical procedure has led to a resumption of hypnotic methods by some workers in this field. The disadvantages, that only about one person in four or five is

a suitable subject for this method of treatment, and that the degree of conscious participation, acceptance, responsibility, and full awareness of the emotional implications of the material produced, are all liable to be diminished, remain. It is yet too early in the renaissance of this method to say whether it has much future in routine practice. Its value in particular types of research is more likely to become established.

Another method of brief psychotherapy which utilises a similar technique for the rapid production and subsequent handling of difficult material relies upon the use of physical methods, such as partial anæsthesia with ether or the intravenous injection of solutions of soluble barbiturate preparations, to reduce the patient's difficulties in producing material, or in living again in imagination situations which are painful to remember. We shall have occasion to mention the physical aspect of these techniques later in this chapter, but their principle does not differ essentially from that of hypnotherapy.

It remains at this point to add that there is some dispute about the degree to which emotional resistance can be overcome by such methods. Certainly in clinical practice, where the well-being of the patient must always take precedence over any and every short cut in treatment, there is little to suggest that patients will disclose under the influence of drugs or anæsthetics, or even under hypnosis, anything which they have consciously determined not to disclose before treatment has begun. They may indeed encounter and express memories and ideas of which they were previously unaware in consciousness, and which unaided they may be entirely unable to accept or face. But there is no parallel whatever between the use of methods of this kind in the treatment of sick and disturbed people, and those naive misconceptions of their use implied by the terms " truth drug " or " truth serum " when applied to them. Information extorted by force or subterfuge against the will of the informant has no place in medicine. Moreover, such information is in fact rarely true, being coloured by the effect of the procedure upon the morale and judgment of the informer, and inevitably influenced in one direction or another by his conception of what his inquisitor wants him to say.

All other techniques of brief psychotherapy are based upon direct interviews between patient and doctor in which, after the initial life study has been made, the doctor selects and in one way or another focuses the work of treatment upon those areas in the patient's life which his experience and judgment lead him to consider the most important in the production of the patient's difficulties. Mention, but only mention, can be made of the importance of the method of distributive analysis, described by Professor Oscar Diethelm of New York, and based upon the original principles of Adolf Meyer, of the brief analysis of Alexander and French, of Stekel's shortened analytical technique, of the applied psychoanalysis of Felix Deutsch, and of the method of insight therapy taught by Professor Finesinger in the University of Maryland.

Distributive analysis entails a reasonably wide selection of areas for exploration and leaves the degree of detail, the extent of active participation by the doctor, and the general method to the discretion of the individual therapist. It is preceded by an exhaustive life study which includes a full consideration of physical and hereditary factors, in the tradition established by Professor Adolf Meyer.

The method propounded by Alexander and French differs little in technique from that of orthodox analysts except that the patient's attention is directed towards immediate constellations of emotion and experience which seem most closely connected with symptoms, interviews are held at lengthening intervals once relief has begun, and cessation of symptoms is accepted as the limited goal of treatment no matter how much or how little material has acutally been worked through.

The Stekelian technique embraces the enterprising innovation of announcing beforehand that the treatment is to be limited in time to a certain fixed period, usually three or four months, no matter what the outcome. Thereafter,

whenever resistance is encountered, interpretation of that resistance is made at once, and in this way the patient is constantly thrown back upon the necessity for facing his own reasons for evading the issues involved, or dreading the feelings which they arouse.

Doctor Felix Deutsch focusses attention from the outset upon the actual complaint of the patient in the very words which the patient employs, claiming with some success that the physician can rapidly relate particular descriptions of pain and suffering, whether of mind or body, to those aspects of the patient's emotional existence with which they are most closely, if unconsciously, connected. He keeps the process of treatment concentrated as far as possible upon the substance of these presenting complaints, by saying little or nothing in reply to questions or demands from the patient except to pick up and repeat to him the particular words which the patient himself has used in telling his story ; particularly those parts of it which seem to the doctor to be linked most directly with the underlying psychopathology. Examples of such links which occur repeatedly in practice are found in the association of repressed disgust with the subjective complaint of nausea ; hostility and aggressive feelings with the symptoms of stabbing or gnawing pain in the abdomen or head ; and anxiety with palpitations, breathlessness, or muscular tension, felt as cramp or aching in the limbs. Superficial as these few examples necessarily are, they reflect a fundamental relationship between emotions and bodily symptoms, which finds expression in such everyday terms as a " sick or aching heart ", " cold feet ", or " a pain in the neck ". Deutsch believes that patients can often be led directly from their account of such symptoms to a release and awareness of underlying emotional problems, which once encountered will prove endurable, while the complaints which overlay them cease.

Professor Finesinger has evolved a technique which bears some resemblance to the one just described, but differs in that, as in the method of distributive analysis, the areas on which attention is to be focussed are selected by the therapist in the light of the general picture of the patient's life which emerges in the early interviews. Thereafter the technique of contributing to the discussion as little as possible, and then only by echoing words or phrases actually used by the patient, to encourage him to elaborate them, forms the basis of the method in its early stages. Later on in treatment, interpretations, of a depth and complexity appropriate only to the scale demanded by the level at which the therapist has chosen to work, are given ; but such interpretations are never made primarily on a theoretical basis, or out of the resources of the therapist's knowledge and experience in general, but are related entirely to the actual material about the patient's own life and his own feelings, provided by the patient himself in his own words.

All these methods, therefore, have in common the paring down of the analytical procedure to deal exclusively with the immediate or essentially alterable sources of complaint. The criticism sometimes offered by orthodox analysts of such methods, is that they tend to patch rather than to recreate the personality of the patient. The answer to this criticism is that the resources of medicine as a whole must in practice often be content to do just that and no more, for as many people as possible. Moreover, the perfectionist attitude implicit in this criticism cannot claim to be supported by the results of full-scale analysis in any but a minute proportion even of those for whom it is practicable.

Apart from psychoanalysis, and the many techniques which are derived from and based upon it, there remain the schools of Jungian and Adlerian analytical psychotherapy to be included under the general heading of those psychotherapeutic techniques which aim at insight and awareness as the basis of change. The way in which they differ in their underlying content and philosophy from psychoanalysis has already been indicated in outline in the preceding chapter. The technique of their administration to an individual patient in terms of interviews, time, and money, does not differ essentially from those already described, although they are not usually as prolonged as a full-scale analysis along Freudian lines.

There remains the somewhat contested school of eclectic individual therapy, which has been vigorously assaulted in its time but continues to command the respect and practical attention of many well-trained psychiatrists, to whom exclusive submission to one particular line of orthodox dogma in their subject makes no appeal. In their methods, technique, and the proportions in which they draw upon the various schools already outlined in their treatment of patients, they display as much but no more diversity than is displayed by artists or technicians in any other craft, such as surgery or painting. As to the merit of their method, they would perhaps choose to be judged by results. On this basis they will stand comparison with practitioners of any other school.

Every one of the methods just described is used primarily on an individual basis, whereby a single patient is treated by a single doctor in a number of interviews. But while the wider and more competent use of supportive and re-educative forms of psychotherapy, mentioned at the beginning of the chapter, can help to bring treatment and relief to many patients who stand in need of it, and the further evolution and practice of brief methods of insight therapy will progressively enlarge the possibilities for treating patients with more complex disorders, there must remain a great many patients whose need of treatment based upon an understanding and concern for the emotional element in their illness can find little or no relief from the resources of the medical profession at present available. This is the more understandable when we remind ourselves that about a third of all human sickness contains an emotional element at least severe enough to require recognition and inclusion in treatment, whatever else is done. The most economical, and therefore in many ways the most practical way of extending psychotherapy to patients of this kind may be by the method of group treatment.

This is a way of treating people which has received professional recognition and development only during the last twenty-five years ; but the principles which underlie it are as old as man himself, and were used by Mark Antony when he roused the people of Rome to avenge the death of Cæsar, and by Mesmer when he grouped his patients together round the magnetic cauldron. Feelings which people develop in a group can be studied and used to amplify and intensify their natural urge towards recovery and understanding. Furthermore their presence as members of a group can increase the sense of support and the readiness to accept and to be accepted, which form an important part of the process of treatment.

Groups of various sizes have been treated, but probably the best size is somewhere around eight to a dozen people. Such people meet together with a doctor as a member, but not as the leader of the group, to talk about their feelings and their problems, and as their confidence increases to attempt to offer and to accept among themselves awareness, courage, and compassion, and to contribute to this experience as well as to gain from it. The doctor's role in the group must be largely that of observer and occasionally interpreter ; his interpretations must confine themselves to the meaning of the emotional interaction which is taking place and the ways in which everyone concerned can accept and learn from it. He neither seeks nor assumes formal leadership because this would interfere with his capacity to reflect an awareness of the struggle for power which, even in a small community, is one of the powerful emotional factors which will inevitably appear. Group therapy is still comparatively in its infancy, but already it has begun to achieve interest and stimulate results. One vivid and spectacular outgrowth has been the method of what is called psychodrama, whereby members of the group produce and act scenes from the daily life or past experience of one of them which have a particular significance for him. and wherein he plays his own role while they play the parts of others in his life or in the world about him, which, in real existence, he finds threatening or provocative. After the performance the players and spectators discuss what has happened, what it has meant to the protagonist, and what emerges from his attitude and experiences in this situation. By taking it in turn to accord to each member who desires it the central role in such a drama the group achieve a collective interest, sympathy, awareness, and sense of union, which are not the least valuable results of this kind of treatment. The contrast

between the relatively unobtrusive role of the doctor in modern group therapy, and that dominance assumed by Mark Antony or Mesmer, is not unimportant, nor is it accidental. The role of the orator or of the charlatan is more often to make men blind than to make them aware.

At the beginning of this chapter we defined psychotherapy as a method of treatment relying for its effect upon an exchange of ideas between patient and doctor, directed towards relief of the patient's symptoms and distress. It is time now to add that by far the most important factor in effective relief or cure, or indeed change of any kind, is the emotional quality of the ideas exchanged.

A competent psychiatrist can often see in essence the core of a patient's problems by the time he has completed the preliminary study of the patient's life. Sometimes patients, sensing something of the purpose of this study, will demand an exposition of what is in the doctor's mind, in the belief or hope that this will offer them an immediate key to recovery. But in this sense unfortunately no-one can learn from another's experience of his life, no matter how expert or accurate the impression formed by the doctor may prove to be.

We built up our patterns of thought and feeling slowly and often painfully, and the emotional experiences which have gone into them have to be relived rather than retold before we are liberated from their influence upon us. There is all the difference in the world between the intellectual formulation of a man's problems and personality, and that change of heart which alone can bring him release from the chains in which they may have bound him. Whether we call the link which the doctor can establish between the one and the other the transference situation or the patient-doctor relationship, we are really dealing with an emotional bond which acts as a catalyst for all the chaotic feeling and experience of the sick or unhappy person.

On the patient's side much of the emotional bond springs, as we have seen, from the reservoirs of stifled and forgotten passions ; on the doctor's side from the detached but absolutely sincere and dedicated concern to help, however humbly, another human being. Behind them both there must be that greatest gift of all, the capacity to love ; and for all the wisdom, skill, and technical accomplishment which ought to go into it, psychotherapy is fundamentally but another way of using the creative power of love towards the restoration of human happiness and peace of mind.

Seen in this way, there is clearly a place for psychotherapy in the treatment of all forms of illness, in so far as in its widest sense, psychotherapy forms the basis of much that is most valuable in the relationship between doctor and patient. Its principles are employed, sometimes almost unwittingly, even in what is known as a good bedside manner. It is in the handling of human relationships in medicine that psychiatry has still something to teach which extends far beyond its own technical province. But in the sphere of mental and emotional illnesses, the degree to which psychotherapy will be employed alone, or will be combined with other forms of treatment, will depend a great deal upon the nature of the particular illness under consideration.

Generally speaking it is in those disturbances of mind and personality whose physical basis is as yet undertermined that psychotherapy alone has the greatest part to play. It is of particular value in states of anxiety, where physical methods may also be employed but are usually subsidiary ; in hysteria ; in obsessional compulsive states of certain kinds ; and in general for those neuroses in which the patient both needs and can co-operate in a personal relationship of this particular kind.

Psychoanalysis is most effective in the treatment of longstanding neuroses in general, of certain types of sexual inversion, and of personality disorder. It has been used experimentally as the sole treatment for depression, and for schizophrenic forms of illness, but here physical methods have a greater part to play in the opinion of most psychiatrists, although the value of psychotherapy in the course of such treatment must never be overlooked.

Notes from a Diary: A Visit to Johns Hopkins Hospital in 1951

By PHILIP EVANS

GENERAL

October 11th. New York.

Docked in rain and mist so the towers of New York were invisible. U.S. citizens and " diplomatic passports " got off quickly, but we were herded in the theatre from 2 until 4.30 while the immigration officials had lunch. The food on the *Queen Elizabeth* is excellent.

A good address is always an advantage. The Customs Inspector saw I was going to Johns Hopkins Hospital so he did not open my bags but asked me all about " socialised medicine ". Interesting discussion, ending with an account of his backache.

October 12th.

Up at 7. Temperature 44°. Walked down Jerome Webster's beautiful garden, the sun gilding the Palisades across the Hudson with glorious alchemy but only hitting the swimming pool after we had got out of it. Felt chilled but virtuous.

October 13th.

To Babies Hospital, where Dr. Conrad Riley took me round. He finds A.C.T.H. or cortisone a useful diuretic in nephrosis, but no more. He showed me one of his patients with chronic autonomic disturbance—he has 16 now : all Jewish ; early onset, no tears, extreme hypertension and blotching of the skin with emotion, severe cyclical vomiting, mental changes, abnormal E.E.G's., etc.

October 13th. Baltimore.

Mr. Danielson and Dr. Alan Woods welcomed me at the station. Mr. D. introduced me to the pleasant room used for visitors to the Hospital. He asked me to change quickly, with the usual result : cut myself shaving, panicked over lost black tie (discovered it in toe of shoe), etc. Out to John Howard's house, very pleasant dinner with, among others, the doyen of the medical corps of Baltimore, Dr. Walter Baetjer.

October 14th.

While Mrs. Howard went to church we rode well-mannered horses through the Greenspring Valley, admiring the autumn foliage which was brilliant in the sunlight.

October 17th.

The traveller's great problem of getting shirts and underwear laundered has at last been solved.

> Here put your nylon shirt within the Bowl
> A dash of Tide, a lather white—the whole
> So swirled and shaken that the drops fall down
> And leave your Shirt as spotless as your Soul.

An expensive country : a threepenny 'bus ride costs 1*s.* 6*d.*, but it is efficient. Pressing a suit takes seven hours instead of a week, laundry five days instead of a fortnight.

Baltimore taxis are relatively cheap, but there are not quite enough of them, so the driver, who gets only 40% of the first fare and is willing to put a second in his pocket is always ready to stop and pick up some one else who is going in the right direction. The first passenger then has someone to talk to.

Middle aged Lady : " You going to Hopkins ? People come from all over the world to go there but Baltimoreans are terrified of it, they butcher you, Baltimoreans never go there."

Evans : " Where *do* you go ? " Middle-aged Lady : " Well, I guess if you're Catholic you go to St. Agnes or Mercy. Or you can go to X or Y or Z (naming three other hospitals). Last time I went to Sinai, but never again, all the food was Kosher. Of course, if I had something bad wrong with me, I'd go to Hopkins, they have the best doctors."

Baltimore taxis have a notice saying, " Relax and enjoy your ride." Too reminiscent of the advice given to those about to be raped, but not quite as disturbing as the gold-embossed diploma in the New York taxi : " This cab is driven by an Honour Driver. He has not been involved in an accident for at least one year."

CARDIOLOGY

October 19*th.*

Dr. Samuel Levine lectured on auscultation—" some secrets that simple instrument known as the stethoscope may reveal." He said that one must not listen casually but say to oneself, " Now I am going to listen to the first sound, and only the first," and after that, systole only, then diastole only. The second sound is not as important.

I never try to remember more than one thing in a lecture : today I chose the first sound and the PR interval. If ventricular contraction follows auricular quickly the valve leaves are still well down in the ventricle, and come up with a rush and are snapped together, producing a loud first round. If the PR interval is prolonged, the valve leaves have floated up and are already almost in apposition, so that systole produces a soft or even no first sound.

In the evening he lectured to the Maryland Medical and Chirurgical Faculty on Coronary Occlusion. His most important point was the danger of putting a cardiac patient to bed (instead of in a chair) and moving the œdema from his feet to his lungs. He spoke very well indeed, although his lecture did remind me of the negro preacher's prescription for a good three-point sermon : " Fust I says what I's gwine to tell 'em. Then I tell's 'em. Then I tells 'em what I's done told 'em."

Blalock also spoke : a graphic bird's eye view of cardiac surgery with a nonchalant disposal of 1,100 operations for Fallot's tetralogy, 75 for tricuspid atresia, etc.

November 6*th.*

Helen Taussig showed me two children with cyanosed feet, moderately cyanosed left hand, and pink right hand. The cause is reversed flow through the ductus arteriosus, i.e., from pulmonary artery to aorta. The innominate and right common carotid get blood from the left ventricle, the left subclavian receives a little of the pulmonary arterial blood, the descending aorta has the full mixture. It is a striking picture. Why has it not been noticed previously ? We shall probably find that it has.

The cause of the reversal in these children was probably hypoplasia of the left ventricle and aorta, with a low pressure on the left, but in another shown at the Cardiac Conference a fortnight ago the cause was pulmonary hypertension. We also saw the specimens, showing intimal thickening of the pulmonary arterioles, from a woman of 37 with this condition. Her ductus had been ligated (in another hospital) and she had died.

Today there was discussion about the treatment of a 17 year old girl who appeared to have an atrial septal defect and mitral stenosis. She also had aneurysmal dilatation of the pulmonary artery, and her ductus was ligated six years ago, without effect on the systolic and mid-diastolic murmurs. She was in a miserable state, just out of cardiac failure on digitalis and a diet containing 2 grammes of salt, and in it with 4 grammes. Dr. Taussig thought that repair of the atrial septal defect would not stand up to the strain of mitral stenosis and that this should be operated on first. Dr. Bahnson did not much want to do either, especially as he was not convinced that there was any mitral stenosis.

October 29th.

They tell the tale, in the congenital heart clinic, of the arrival of a new nurse who said she could not understand why they needed a 14-man team for catheterisation—" Why, where I come from one nurse does it all by herself."

NEUROLOGY

October 16th.

Dr. Livingstone, who has great experience, treats prolonged epileptic fits with seconal—a capsule of ¾ or 1½ grains, punctured and with a drop of water in it, inserted high into the rectum. Seconal suppositories are not as effective. Seconal only puts the patient to sleep and must be followed by phenobarbitone.

If he is using phenobarbitone from the beginning, in status epilepticus, he gives 1 grain for each year of age up to 5, intramuscularly.

If seconal and phenobarbitone fail he gives ether by inhalation. Intravenous phenobarbitone is dangerous, intravenous tridione not very effective.

October 19th.

Livingstone is quite clear that the most effective treatment for grand mal or for akinetic petit mal with high-voltage low-spiking brain waves is a ketogenic diet. It is a low-calorie diet also, because if you give a little too much food the child leaves some fat but eats all the carbohydrate part of his meal. " It is the only sort of treatment which makes the brain-waves normal." Because of its tediousness he uses it only in cases in which there is no response to drugs. In the one very troublesome case in which I saw it used here its success was dramatic.

October 24th. Baltimore.

Neurological conference at University of Maryland Hospital. Patients well and unpretentiously presented by the Resident, for the comments of the neurologist, the neuro-surgeon and the ophthalmologist. Good cases : small vascular accident in brain stem in a 55 year old man ; two boys with cerebral abscesses—one followed by athetosis of the leg, the other due to Cl. Welchii and without sequelæ ; a progressive ophthalmoplegia previously diagnosed as myasthenia gravis and a true myasthenia for comparison ; a paralysed scalenus anticus in a soldier ; a 63 year old woman with a carotid-cavernous fistula, the bruit being picked up by a microphone and amplified to that we could all hear it ; specimens from a diabetic patient with infective cavernous sinus thrombosis followed by thrombosis of the intracavernous part of the internal carotid artery ; etc.

October 26th.

Spent the afternoon with the unique embryological collection in the Carnegie Laboratory. Welcomed by Dr. Corner, who gave the Addison lecture at Guy's this year. I tried to understand the serial sections of an embryo with amyelia and exocardia but found it too difficult.

October 30th.

They say their results in tuberculous meningitis are not as good as ours, but I don't know how different they are. Treatment is much the same, although they often give longer intrathecal courses of streptomycin, and are in less of a hurry to make burr holes, and they never leave catheters in the ventricles.

November 3rd.. Philadelphia.

They treat tuberculous meningitis here much as we do except that they always give promizole, burr holes are made on admission as a routine, catheters are not inserted, cisternal punctures are not done, PPD is used at once if there is a block, and dye tests are done every month to detect blocks. This last seems to me to be useless, as a block must be detected at once and not by a routine test. The results until recently have not been good. I wonder whether the reason is that smooth continuity of treatment, which is essential for chronic diseases, is difficult to attain. The visiting physicians go on service every two months, assistant residents change to other departments every two months, and interns about every month.

October 30th. Baltimore.

Two children with lead poisoning died recently of medullary compression following lumbar puncture. This presents a difficult problem, for the brain swells so much that the ventricles collapse and it is impossible to get a needle

into them. Surgical decompression has not been very successful. Schwentker suggested that surgical decompression followed by repeated ventricular tapping might be successful.

Another child died recently in status epilepticus at the age of 8½. At 1 year she had influenzal meningitis which left her an epileptic idiot. When she was 7 McKhann's operation, in which the common carotid and internal jugular are cut and transposed, was done in order to increase the blood supply to the brain. At post mortem both cerebral hemispheres looked angiomatous, although the operation was performed on one side only.

November 21st. Montreal.

At the Neurological Institute, Penfield's secretary protected him from me, but the registrar has recently spent some time at The National and he was very friendly. In addition to their well known methods of investigations of epileptogenic foci they are seeking the biochemical lesion in the excised foci, a promising approach.

LIBRARIES

October 21st.

Mark Ravitch drove me to his home. A relative of his, an ex-publisher named Boni, showed us his " Readex " machine. A printed 6-inch by 9-inch page carries a reduction of 100 pages of a book, the Readex magnifies each page to a convenient size. The whole of the Index Medicus, about 50 volumes of 500 pages, would go on 125 cards. Dr. Sanford Larkin came across to see it.

October 22nd.

In the Welsh Library Dr. Larkin showed me a machine sorting 600 cards a minute, as part of a research into medical journals of which there are 6,200. There seems to be no reason why, if medical literature were codified, a machine should not pick out the entire bibliography of a subject and select articles referring to a particular point. Something of the sort is badly needed : the volume of medical writing does not defeat man's intelligence but it exceeds his time.

Went to see the Jonathan Hutchison MSS. but they have been put away again. Dr. McCusick wrote to one of the descendants to ask about the J. H. medical papers, and was told that Osler had brought them and presented them to Johns Hopkins Hospital ! After a search eight crates of them were found in a basement.

November 22nd. Montreal.

Delightful afternoon in the Osler Library with one of Osler's four great friends, Dr. Francis. He was one of A. E. Garrod's clinical clerks at Great Ormond Street in 1905.

We looked at Osler's notes from schooldays to those of the last address he gave ; saw his unique collection of Sir Thomas Browne's works from a MS. of Religio Medici to Osler's favourite copy, the first book he ever bought, and bearing pencilled notes written in the last month of his life. There was also a printed copy in which Browne had written his corrections—his handwriting was atrocious and the printer had naturally made mistakes. Dr. Francis showed me the first book, or at least the first medical book, to be printed in its author's life-time—the subject was pædiatrics.

CASE NOTES

CASE 1. *October 16th.*

Presented with a three months old coloured girl with pneumonia. I examined her and picked the right side. The X-ray showed two pneumatocoeles, so I said the staphylococcus would be found. It had been ; in addition the W.B.C. was 22,000 and the Hb. 8·5g. To what did I attribute the anæmia ? I was asked. " Infection," I said. " Does acute infection produce this much anæmia ? " he said. " Well, there it is," I said. " There is 80% sickling, with carbon bisulphite," he said ; " of course if you hadn't worked here in 1938 we wouldn't have thought it fair to try to catch you on sickle-cell anæmia."

CASE 2. *October 17th.*

Another pneumonia. Again I got the side correct, always a fifty-fifty chance. There was a patch at the left apex with a tympanitic note and reduced breath sounds, so I said there was a small pneumothorax (after surreptitiously seeking and finding the mark of a paracentesis thoracis). The X-ray film showed a clear area in the right place, it had been diagnosed as a large pulmonary cavity.

They considered that this child had acute pleuropneumonia, i.e., pneumonia due to one of a variety of common bacteria, and characterised by massive fibrinous pleural exudate. They find it a useful clinical conception.

CASE 3. *October 18th.*

A 7 months old coloured boy fell, cracked his parietal bones, and is being treated for bilateral subdural hæmatomata. He has a snuffly nose, the liver and spleen are palpable. X-rays of the long bones show gross syphilitic osteitis. Serological tests for syphilis (S.T.S.) are repeatedly negative in all dilutions in different laboratories, and because of this the syphilologists say he has not got syphilis.

A week or two after his admission his twin sister was brought here with a painful swelling and loss of movement of the left leg—a pseudoparalysis. X-rays of her bones show gross osteitis. Her S.T.S. are positive (with a prozone) up to 1/32. The syphilologists say she has syphilis.

The father's blood is positive to 1/256.

The mother had a penicillin treatment in 1948. She had no antenatal care. About six weeks after the children were born they were so anæmic that they were transfused, the girl with the father's blood and the boy with the mother's. Two to three weeks later the girl had " measles " (possibly a syphilitic rash). The mother was found to have a weakly positive blood test, and has been treated with penicillin, tests are now negative.

It seems obvious to me that the boy has syphilis, either acquired congenitally or by transfusion, but they are going to mix his serum with spirochætes to see if they stop wriggling. As they are going to make holes in his head to treat the subdural hæmatomata, it might be worth while to remove a little bone for examination.

October 26th.

They showed the syphilitic twins at the Conference today. As we were leaving a senior member of the staff asked me what I thought of not treating the boy. I unwisely replied : "I think it is almost criminal negligence." He said : " I've just written a note to the Resident saying that a good deal of pressure will probably be brought to bear on him to treat, but advising him not to. I am a scientist, and it's such a wonderful control ! " I did not ask what would be controlling what.

CASE 4. *October 19th.*

I learned a new phrase. Warde Allan asked me to dinner at the Maryland Club, with Drs. Harvey and Cartwright. They fell to talking of tricky cases. Harvey said he was shown one which the assistant resident presented in such a way that Harvey was meant to diagnose generalised tuberculosis. He examined the man and saw puncture marks in the left arm, " so I knew he was a main line driver, reached for the spleen and asked for the S.T.S., which was 4 plus."

Apparently sailors, often West Indians in these parts, get an eye-dropper and file the end down to fit a needle. They fill the eye-dropper with heroin solution and inject a little, then pass the syringe with the heroin, and any spirochætes which may have been picked up, to the next man in the circle, and so on. A main line driver is one who uses the main line, i.e., the brachial vein, for injection.

CASE 5. *October 18th.*

An 8 year old girl had sickle cell anæmia. She had had several crises, and her heart was much enlarged. Recently she had become very thin and ill, with enormous hepatic enlargement and ascites. She passed a round worm, and she had 60% eosinophils in a high total white count, so a diagnosis of hepatic

ascariasis was made. No ova were found in nine stools. Biopsy of the liver showed little yellow nodules, which contained ova and worms of Capillaria hepatica.

This is the third known case of infestation with this worm, the first with an antemortem diagnosis.

Dr. Otto told us that, in 1937, 75% of the rats in Baltimore (100% of those around the hospital, which is not in the most attractive part of the city), harboured the parasite. The life cycle is : embryonated worms are swallowed by rat, mouse, peccary, monkey, squirrel, etc., and hatch in the ileum and caecum into thread-like worms two inches long, which get to the liver and there lay eggs. They cause fibrosis and the worms die. The eggs cannot escape, except by destruction of the liver. The animal dies, and the liver is eaten by rat, dog, cat or man. The eggs are liberated in the intestine but cannot embryonate at body temperature and so are passed in the fæces. In about three weeks they embryonate and are ready to be picked up and swallowed by the host. Consequently, the finding of eggs in a stool is no sign of hepatic infection; and if the liver is infected the eggs are not passed in the stools.

CASE 6. *October 19th.*

Today's interesting case : a child had a convulsion, and had a red throat and fever (and, of course, sickle cell disease) ; no meningeal signs but because the fever was inadequately explained lumbar puncture and blood culture were performed next day. The C.S.F. was under pressure (200 mm.) but had no cells and a negative Pandy test. Type 16 pneumococcus was cultured from C.S.F. and blood. Next day there were 1,000 cells cu. mm. in the C.S.F., and subsequently 8,000, but recovery was uninterrupted. (For pneumococcal meningitis they now use aureomycin only : four 6-hourly injections of 10 mg./kilo, then 100/mg./kilo/day orally for three days, then a reduced dose.)

Barton Childs emphasised the importance of culture of clear C.S.F. in all such cases—this is the third he has seen, with pneumococci. I have seen it only once, with meningococci.

November 22nd. Montreal.

Goldbloom described to the students a child with purpura and fever, and apparently normal C.S.F., but the pathologist stained a smear of it and found numerous meningococci.

CASE 7. *October 22nd. Baltimore.*

In a 2 years old boy I diagnosed polyneuritis of the ascending type, rather than poliomyelitis, because the paralysis was symmetrical. But it turned out that there were 80 cells cu./mm. in the C.S.F. so I withdrew.

October 26th.

The condition still looks more like a polyneuritis and the neurologist calls it a neuronitis.

October 23rd.

Cases at Sinai Hospital today.

CASE 8.

A 9 years old girl fell in the school playground and was only slightly injured, but she was disoriented and hallucinated for four days afterwards. At first no cause was found but the E.E.G. showed bilateral synchronous big slow waves on over-breathing, so epilepsy was diagnosed.

CASE 9.

A 13 days old first baby. Jaundice at six days, now disappearing ; dark urine, coloured fæces, biphasic van den Bergh, no anæmia or incompatibility of blood, no syphilis, glycosuria 3+. Probably neonatal hepatitis with glycosuria due to hepatic abnormality, but galactosuria should be excluded although it is early for hepatic degeneration in a galactosuric.

CASE 10.

A 7 weeks old baby with an upper respiratory infection went into coma with tonic and clonic spasms. Tests on blood and C.S.F. showed absence of sugar. Dr. Shaffer brought out the point that to reproduce the symptoms of hypoglycæmia in a child *when he is free from infection* you may have to starve him for 48 hours.

(To be concluded)

Correspondence

The G.P. and the Hospital

SIR,—As a G.P. of some 25 years' standing I agree with much of what you say in Passim of 8th March. The N.H.S. had scarcely been instituted before the G.P. was represented as a monument—or was it a mountain ?—of ignorance. He was, so it would appear, just like the small boy so often depicted in the pages of Dickens, who, in company, is soundly cuffed by his father to cover up some fatuity committed by his parents. The G.P., in fact, was for a time the red herring trailed over the manifold shortcomings of the N.H.S. The baker and the plumber may in the course of years become a master baker and a master plumber, but the G.P. becomes to his detractors merely an old fool. In to-day's *Times* (27.3.52) Lord Moran repeats this brand of claptrap. His panacea for everything that is amiss in the N.H.S., including G.P's. increase of pay, is to make him attend hospitals.

Who are the doctors in actual practice who clamour for work in Hospitals ? What is the size of their practices ? Out of some 20,000 General Practitioners only 800 attended postgraduate courses last year. There are various reasons for this, and I could advance a few had I the space, but it does not look as if G.P.s were clamouring to add work in hospitals to what they have already. A doctor with, say, 3,000 to 4,000 patients cannot find time to do simple things like E.S.R.s. One has only to fumble with a puny vein and listen to the footsteps, " sans cesse," entering the waiting room, to have almost a fit of apoplexy.

So far as one can see physical examination does not seem to have altered much in the last 25 years, and does the hospital physician himself learn how to do special examinations let alone do them ? What, then, would the G.P. do in a hospital ward which he couldn't do outside ? Fiddling about there with numerous jobs outside on his mind will only serve to increase the medical death rate from coronary thrombosis. Let those who have the time and inclination do hospital jobs. Any doctor worth his salt can keep up with current therapeutics, *so far as they concern him*, by reading his medical journals, and please do not think he culls his therapeutics from the literature of the manufacturing chemist. Some may do, but the mentally lazy and the gullible are to be found in every profession and will never be cured.

Yours, etc.,

G. L. DAVIES.

Missenden Lodge,
Withdean Avenue,
Dyke Road Avenue,
Brighton, 5.

Passim

SIR,—It seems, judging from the letter that appeared in the last issue of the *Gazette*, that the Passim of the 23rd February, 1952, has seriously misled some of your readers in the matter of Ward Clerks' Reports.

We can in no sense agree with your censures of the manner in which these medical reports are now written. We do not deny that there are now, as there have been in the past and doubtless will be in the future, a few bad Ward Clerks, writing bad reports. But we have been impressed, as will anyone who pays more than an occasional visit to the reports registry, by the fact that the good reports were no better and the bad ones no fewer than they are now.

The fact that case histories have maintained their standards in the face of a much fuller curriculum and a greater urgency to pass examinations is indeed to the credit of the present generation of students.

We urge the writer of Passim to turn his gaze away from the golden mists that surround the past and to take a less jaundiced view of the present.

Yours, etc.,

THE MEDICAL REGISTRARS.

Passim

SIR,—I have often wondered as to the final disposition of the many important suggestions that you make in your Passim from time to time.

In the issue of June 17th, 1950, and again in the issue of February 24th, 1951, you stated : " It would be a pleasant custom if all old Guy's men automatically became guests in the College at meals and if someone . . . would act . . . as host." Of course, this is a most important suggestion, for there are only a " chosen " few who are fortunate enough to be numbered among those employed at the Hospital. The rest must go to all parts of the world carrying forward the noble tradition of the Hospital.

It is fitting, therefore, that some period during the year, say in the summer, should be set aside by the Hospital authorities for the welcome of its sons and daughters so that they may see how well their heritage has been preserved. The present then hospital community would act as host during such an " at home week " when graduates would meet their old friends, and maybe, even take part in discussions on contemporary medical questions.

Perhaps there are other medical schools which are entitled to be regarded as Commonwealth Medical Schools, but a more typical Commonwealth Medical School than Guy's it would be hard to find.

You may well appreciate my interest in such a yearly meeting as indicated above, since I have neither immortalised myself by carving my initials on any of the desks of Classroom One, nor on the desks in the Anatomy Theatre, nor have I painted a mural or provided a sculpture, or displayed any work of art in that Forbidden Room.

Yours, etc.,

KENNETH G. SOMERS-DEHANEY.

College Catering Company

SIR,—You will no doubt recollect that there have, in the past years, been complaints that students have not known the names of their representatives on the College Catering Company. I wonder if you might find a few lines in the *Gazette* to state that

> Messrs. A. P. O. Stewart and T. B. Stephen have been elected as student representatives to the Board of Directors of the College Catering Company for the ensuing year.

Yours, etc.,

A. BATTY SHAW,
Hon. Secretary,
Guy's Hospital Students' Club.

Yet Another Specialty ?

The Superintendent is a little puzzled as to the precise location of that special department envisaged in the following letter which he received a few weeks ago, but he is not inviting comments or even helpful advice on the subject :—

Dear Sir,

Would you please let me know when I can have an appointment to see this gentleman ? I hope I have spelt it correct. The Squallologist.

Thanking you,

ANON.

Guy's Physical Society

ON February 28th, the Physical Society held a combined clinical meeting and film show under the presidency of Mr. A. E. Dominick and Mr. E. E. D. Tomlin. The film, "The Early Diagnosis of Cerebral Palsy," was having its first public showing. It was fitting that this should be at Guy's for it revealed Dr. MacKeith in the unaccustomed role of film star demonstrating the movements and behaviour of spastic and athetoid children and comparing them with normals. Mr. Dominick introduced the film and subsequently replied to the discussion. He was able to underline and amplify the lessons of the film by showing a case of spastic diplegia at the clinical part of the meeting.

On March 20th, a party of 30 members led by the presidents, Mr. R. K. Allday and Mr. J. L. Turk, paid a visit to St. Thomas's Hospital for the annual meeting with their Medical and Physical Society. St. Thomas's has a reputation for doing this well, and this year was no exception. They had prepared a varied programme which included slides and bottles (amongst which was a specimen prepared by Sir Astley Cooper), photographs and some exceedingly difficult X-rays. The Guy's team held their own valiantly in this gruelling bout and clearly impressed their hosts with the ease and nonchalance with which they recognised such rarities as Turner's syndrome of ovarian agenesis, but Klippel-Feil's syndrome had them guessing.

The clinical cases were of outstanding interest. Amongst these were three cases of amyloidosis, one involving peripheral nerves, another complicating phthisis and a third following ulcerative colitis. It was noteworthy that in this case the liver had returned to a normal size after colectomy. Other cases which provoked some lively discussion included a man with cardiac failure and Paget's disease, a case of unexplained hæmoptysis, and a most instructive illustration of the possible complications of partial gastrectomy for duodenal ulcer in a man who, two years after the operation, developed severe weight loss, lassitude, anæmia and steatorrhœa.

The discussion was preceded by an excellent dinner at which beer flowed freely. Mr. Allday expressed the gratitude of Guy's for this hospitality and for the admirable arrangement of the meeting which has set a standard that we shall do our best to emulate when St. Thomas's visit Guy's next autumn.

April		ACADEMIC
		Exhibition. Surgical Department. "Minor Operations in General Practice."
8th	1.00.	Dr. Baker. Clinical Lecture. "Therapeutic Dehydration."
9th	5.00.	Department of Medicine. Professor R. Knox. "Resistance of Micro-Organisms to Drugs—II."
	5.30.	Dr. Stafford-Clark. Clinical Demonstration. York Clinic.
10th	1.00.	Mr. R. H. O. B. Robinson, Surgeon and Urologist, St. Thomas's Hospital. Clinical Lecture. "Prostatic Obstruction."
	5.00.	X-Ray Meeting. Gordon Museum.
17th	1.00.	Mr. Glover. Clinical Lecture.
	5.00.	X-Ray Meeting. Gordon Museum.
18th	1.00.	Dr. Campbell. Clinical Lecture.
21st	1.00.	Mr. Stamm. Clinical Lecture. "Chronic Arthritis of the Hip Joint."

Reviews

A Synopsis of Neurology. By W. F. TISSINGTON TATLOW, J. A. ARDIS and J. A. R. BICKFORD. Wright. *Price* 30*s.*

In this book the authors have attempted to summarise the vast field of neurology in several classified sections. Nearly the first half of the contents are devoted to neuronectomy and the remainder to neurological disorders. The former part contains many helpful and often original diagrams.

Of necessity the book is highly condensed and, as its authors state, should only be used as a reference to obtain quickly the essential facts of any chosen subject. In this respect it serves a useful purpose.

It is also claimed that the book should help senior undergraduates and postgraduates in preparing for examinations. However, one feels that for clinical students the anatomical data presented could have been reduced to more relevant proportions and a little more elaboration given to clinical syndromes. J.V.G.

Lumbar Puncture and Spinal Analgesia. By R. R. MACINTOSH. Livingstone. *Price* 21*s.*

It is a pity that Professor Macintosh did not publish this excellent work before the advent of curare when spinal analgesia was more commonly used. But even if spinal analgesia is on the wane, lumbar punctures are still performed in large numbers and therefore this book will prove a most useful possession. The text is extremely lucid, the references abundant and the book so well printed and produced that it is a delight to read. The most striking feature, as in all the author's previous works, is the high standard of the illustrations of which there are many throughout the book, as well as one chapter devoted solely to this purpose. There is no question that this short book should be carefully studied by all anæsthetists who at some time will be called upon to administer a spinal anæsthetic as well as all others who at any time may have to perform lumbar puncture. D.M.C.

Diathermy. By WILLIAM BEAUMONT. 2nd Edition. Lewis. *Price* 21*s.*

This, the second edition of Dr. Beaumont's book on Diathermy, has been almost completely rewritten and brought thoroughly up to date. It does not aspire to be a highly scientific treatise, but in simple language deals in turn with the physical and physiological principles, risks and dangers, technique and types of condition likely to benefit from this form of therapy. The book is well produced, the illustrations are clear, and it can be thoroughly recommended to all interested in physical medicine. E.J.C.

Royal Northern Operative Surgery. By THE SURGICAL STAFF OF THE ROYAL NORTHERN HOSPITAL. 2nd Edition. *Price* 90*s.* 0*d.*

This second edition of the " Royal Northern Operative Surgery " differs from the first in the addition of chapters on plastic and neuro-surgery. The high standards of writing and production have been maintained by distinguished authors and by the publishers. Illustrations are good and clear.

Each section is written by an experienced surgeon and is a description of surgical procedure at the Royal Northern Hospital. This stated aim precludes descriptions of many operations and discussions of their merits, and although details of practice differ, the principle laid down in this book must receive wide acceptance.

In describing operative procedures, it is sometimes difficult to put precise techniques into words and this must surely account for the very few unfortunate similes, such as the likening of the excision of the submandibular salivary gland to the enucleation of the prostate.

This is a production worthy of British Surgery and will be most useful to practising surgeons. P.G.L.

Relief of Pain in Childbirth. By W. C. W. NIXON and S. G. RANSON. Cassell. *Price* 7*s.* 6*d.*

This easily read little book endeavours to summarise the status of most of the accepted drugs and methods in use in this country for analgesia and anæsthesia in obstetrics at the present day. Following a summary of the pharmacological properties of the various agents, and a description with illustrations of the different types of apparatus, giving details of price and manufacture, the conduct of normal and abnormal labour is explained, the guiding principle being a reasonable relief of discomfort whilst retaining the co-operation of the mother. After describing anæsthesia and analgesia for the standard obstetric procedures, the final chapter is devoted to resuscitation of the newborn. This book should prove most useful to the student and general practitioner, but there is insufficient detail if particular information about any specific drug is required. P.J.H.

Biochemistry for Medical Students. By W. V. THORPE. 5th Edition. Churchill. *Price* 22*s.* 6*d.*

Writing a new edition of a book involves at least two tasks : the addition of relevant new material and careful revision of the text as a whole. The first of these tasks has been accomplished adequately in this edition, notable additions being that of the tricarboxylic acid cycle as the mechanism probably involved in the oxidation of pyruvic acid, the extension of the Krebs ornithine cycle to show the possible participation of aspartic and glutamic acids in the formation of urea and a considerable enlargement of the sections on the use of isotopes in biochemical investigations.

The second task has not been attempted. There are statements in the edition under review, and also in the third and fourth editions, which should not have appeared in any text-book, and if, by mischance, they appeared in one edition, should have been deleted in the next. (" The concentration of surface lowering substances is often visible to the naked eye." " Euglobulin is insoluble in water and only soluble in the presence of salts. Pseudoglobulin is soluble in water unless the last traces of salts are carefully removed." " One of the most rapid examples of inhibition . . . ")

Physical Chemistry is a subject which many students find difficult and it is regrettable that the chapters on osmotic pressure, surface tension, the colloidal state, etc., are not only confused, but contain many misleading and even erroneous statements. A.S.

Any Questions ? A Selection of Questions and Answers published in the *British Medical Journal*, London. British Medical Association. *Price* 7*s.* 6*d.*

In this book are recorded in permanent form for further reference a selection of the questions and answers which have appeared in the *British Medical Journal* over the last eight years. G.

The Use of Tracer Elements in Biology. By W. G. OVEREND. Heinemann. *Price* 3*s.* 6*d.*

This book surveys the uses of both radioactive and stable isotopes as tracers, and also mentions such important topics as the induction of mutations and the treatment of cancer by ionising radiations.

The production, detection and measurement of tracers are dealt with very inadequately in a single chapter, and the important limitations set by the penetrating powers of α, β and γ rays on the types of experiment which can be performed are not clearly explained. This section in particular suffers from an absence of diagrams and photographs which is noticed throughout the book.

The main part of the book, which is devoted to brief descriptions of a large number of examples of the use of tracers in following the fate of " labelled " molecules in living organisms, is clear and concise and should be a useful introduction for students who have some knowledge of organic chemistry A.N.

Special or Dental Anatomy and Dental Histology. Vol. 1. By T. W. WIDDONSON.

The eighth edition of this work has many improved sections but still needs modification.

Many line drawings could be improved and Figures 316 and 330 are misleading. The former shows two root canals in lower incisors and the latter depicts a maxillary lateral incisor rather than a mandibular canine.

Growth of the maxilla being dependent upon antral growth is disputed by general anatomists and the statement that at seven years the deciduous molar roots are resorbed is incorrect. Tome's views on enamel formation and the method of preparation of non-existent Neuman's sheaths could be omitted. Hodge's analyses, omitting oxygen percentages, and Boyle's work on dental curves may confuse the student as they are presented here.

Description of the hard tissues is adequate but related soft tissues are not well described. The section on mastication is useful and pruning of references from the text has improved this standard work. P.C.G.

Anæsthetics for Medical Students. By GORDON OSTLERE. 2nd Edition. Churchill. *Price* 8*s.* 6*d.*

This small book, essentially practical rather than theoretical, can be read with ease in two evenings. The author's views on trilene may not be acceptable to all modern anæsthetists, but he covers most of the important points concerned with the safe administration of an anæsthetic. For the anæsthetic clerk and junior house officer who probably have little time for theory, it can be well recommended. D.M.C.

Sport

RUGBY

Guy's Hospital *v.* Old Paulines

At H.O.P. Result—Won 11—3

22nd March, 1952

Guy's gained their eighth success of the season when defeating Old Paulines by a goal, a dropped goal and a try (11 points), to a penalty goal (3 points).

Guy's were not at full strength, notable absentees being W. J. Howells, E. O. James, H. C. Meredith, G. D. Thomas and W. G. Davies, but their deputies performed most creditably and indeed must take a lot of credit for this convincing win, especially as all the points were scored by the backs.

For most of the game play was scrappy and not a good one for the spectator, and the game was somewhat marred by too much whistle which must have been very disturbing to the players when getting thoroughly warmed up. However, Guy's forwards indulged in some combined rushes that kept the Paulines on the alert and our three-quarters moved with precision and speed, using an occasional break-through with timely kicks to touch.

J. W. Osborn opened the scoring with a long-range drop goal, but this was neutralised by J. D. Farrell who kicked a penalty goal for the Old Boys. An injury to L. Balfour-Lynn soon after the second half had started reduced Guy's to fourteen men for the rest of the game, but towards the end Guy's superiority was demonstrated to the full. B. J. Cremin obtained possession and passed to J. C. Kingston who completely outwitted the Paulines' defence and sent B. J. Dodson in for a try by the flag that J. C. Burt failed to convert. J. C. Kingston followed immediately with an electrifying run on the right, evading all attempts to arrest his progress to cross in the corner and touch down under the posts for T. Smith to convert.

One does not know whether the Old Paulines were at full strength but as they claim 10 victories this season including wins over St. Mary's, Bath and Old Whitgiftians, this performance by Guy's must be considered of some value, but it was most disheartening to see only a handful of spectators present to encourage the team.

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the appointment of **Research Fellow in the Ear and Throat Department** of Guy's Hospital. The appointment is full-time and the successful candidate will be expected to conduct investigations under the direction of the heads of the department. Salary within the range £600 to £775 per annum according to qualification and experience. A higher surgical qualification and some experience of oto-laryngology are desirable. Applications, with the names of three referees, should be sent to the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, not later than **30th April, 1952.**

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL

Southwark Bridge Road, London, S.E.1

Applications are invited for the post of **House Physician** vacant on the 1st May, 1952 (second or third post). The duty for the first two months will be in the Casualty Out-Patients' Department. The post is tenable for a period of six months and is recognised for the D.C.H. Salary at the rate of £400 or £450 a year, according to experience, with a deduction at the rate of £100 a year for residential emoluments.

Applications, stating age, nationality, qualifications (with dates), and accompanied by copies of three recent testimonials, should reach the Hospital Secretary by the first post on **Thursday, 10th April, 1952.**

UNIVERSITY OF LONDON

Recognition of Teachers

Faculty of Medicine

Ian G. Robin as a Teacher of Oto-Rhino-Laryngology at St. Mary's Hospital Medical School.

PASS LIST

CONJOINT BOARD

L.R.C.P., M.R.C.S.

First Examination

March, 1952

Pharmacology

D. P. Adamson	E. R. Lester
S. S. Barker	R. J. R. Moffat
M. C. Batcheldor	J. S. Norell
C. Bishop	Barbara K. Oliver
P. D. Bowen	Pamela M. Ordish
W. M. S. Boyd	J. V. Parson
J. A. A. Bullard	A. J. Pearson
J. Bullen	M. W. Potts
B. B. Collins	I. F. S. Rae
G. Evans	J. A. Rozario
P. J. Frost	K. Scott
J. G. P. Hunt	T. B. Stephen
J. A. Jemson	G. G. Temple
R. G. Jones	R. V. L. Thomas
J. W. Jordan	A. D. Tuddenham
K. Kelly	B. A. Tudgay
J. W. Kirkbride	D. J. Waller
C. E. Lay	J. H. P. Willis

Anatomy

Mary R. Remington

UNIVERSITY OF CAMBRIDGE

Pharmacology

Lent Term, 1952

A. B. Aistrop	A. J. Kenmuir-Evans
L. F. Brunt	P. J. J. O'Neill

UNIVERSITY OF OXFORD

Pharmacology and Principles of Therapeutics

Hilary Term, 1952

J. B. L. Gee

Forensic Medicine and Public Health

B. Pigott A. H. Vaughan C. T. M. Wilson

Special and Clinical Pathology

B. Pigott A. H. Vaughan

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

First Examination

March, 1952

Anatomy and Physiology

B. Armitage	N. A. Labuschagne
C. R. Armstrong	A. M. A. Lowe
Pamela Bason	R. C. Moyse
A. J. Bradley	Pamela A. Newbold
P. L. Davies	A. P. B. Sibson
P. H. N. Davis	F. C. van Coppenhagen
A. B. Greenwood	M. F. H. Willis
R. B. Johns	

Special Anatomy and Physiology

C. R. Armstrong	Shirley M. Kanaar
Pamela Bason	A. M. A. Lowe
A. J. Bradley	Pamela A. Newbold
P. L. Davies	J. W. Riley
Gillian H. Gordon	A. P. B. Sibson
J. J. Jeffreys	M. F. H. Willis
R. B. Johns	Barbara T. Woolf

L.R.C.P., M.R.C.S.

March, 1952

Physics

J. A. A. Ranson

Chemistry

J. P. K. Carver	W. A. A. Renner
R. G. Cumming	M. G. Smith
C. J. Meryon	

SOCIETY OF APOTHECARIES OF LONDON

Final Examination

March, 1952

Surgery

C. P. B. Brook *R. D. France

Pathology, Bacteriology and Forensic Medicine

J. H. Kerr J. G. Lymbery I. K. Nasr

Medicine

P. M. Hardiman J. H. Kerr I. K. Nasr

Midwifery

J. U. MacWilliam J. D. Pryce

* Has completed the examination.

SERVICES IN THE CHAPEL

April 6th, Palm Sunday	7.0 a.m.	Blessing and Distribution of Palms and Holy Communion.
	10.45 a.m.	Service and Address.
Monday, Tuesday, Wednesday, Thursday, in Holy Week	7.0 a.m.	Holy Communion.
Good Friday	7.0 a.m.	Matins and Ante-Communion.
	10.45 a.m.	Service and Address.
Holy Saturday	7.0 a.m.	Matins and Ante-Communion.
	8.30 p.m.	Compline & Blessing of Paschal Candle.
EASTER DAY	7.0 a.m.	Holy Communion.
	10.45 a.m.	Service and Address.

Holy Communion on Easter Day at Southwark Cathedral 8.0, 9.0 and 11.0 a.m.

NOTICE

XIth INTERNATIONAL DENTAL CONGRESS OF THE FEDERATION DENTAIRE INTERNATIONALE

London, July, 1952

At a meeting of the Organising Committee held on Saturday, January 26th, the question of reduced subscriptions for members of the Armed Forces attending the Congress was discussed.

It was decided that any Officer holding the rank of Major or below or its equivalent rank, in the Armed Forces in Europe and the United Kingdom, would be admitted to active membership of the Congress at the reduced subscription of £2 15*s*. 0*d*., providing an enrolment form is presented endorsed by a Senior Dental Officer in his Service and that the Officer concerned attends the Congress in uniform.

This is an effort on the part of the Organising Committee to help the Junior Officers to attend the Congress.

PAPERS BY GUY'S MEN

Amin, J., Grant, R. T., Pels, H., and Reeve, E. B. The Plasma, Cell and Blood Volumes of Albino Rabbits as Estimated by the Dye (T.1824) and ^{32}P Marked Cell Methods. *J. Physiol.*, 1952, **116,** 59.

Bearn, A. G., and others. The Effect of Adrenaline and Noradrenaline on Hepatic Blood Flow and Splanchnic Carbohydrate Metabolism in Man. *J. Physiol.*, 1951, **115,** 430.

Bearn, A. G., and others. Hepatic Blood Flow and Carbohydrate Changes in Man during Fainting. *J. Physiol.*, 1951, **115,** 442.

Bray, Barbara M., Merivale, W. H. H., and Willcox, D. R. C. The Effect of Ephedrine on the Excretion of Reducing Steroids, 17-Ketosteroids and Uric Acid in Healthy Men. *J. Endocrinol.*, 1952, **8,** 27.

Camps, F. E. The Clinical Aspects of the Case of Stanley Setty. *Lond. Hosp. Gaz.*, 1952, **55,** 12.

Camps, F. E. The Medical Officer of Health and the Forensic Pathologist. *Publ. Hlth. Lond.*, 1952, **65,** 77.

Camps, F. E. The Medical Witness for the Prosecution and the Defence (Paper read before Plymouth Medical Society). *Bristol med.-chir. J.*, 1952, **69,** 13.

Cardew, Peter N. The Use of Electronic Flash in Medical Photography. *Med. Illus.*, 1952, **2,** 27.

Cathie, I. A. B., and another. Effect of Still's Disease on the Hæmopoietic System. *Ann. rheum. Dis.*, 1951, **10,** 412.

Crombie, H. M. Pre-Operative Preparation and Post-Operative Care in Minor Surgery. *Brit. dent. J.*, 1952, **92,** 88.

Cutler, Robert. Progress in Development of Conservative Quick-Setting Acrylics. *Brit. dent. J.*, 1952, **92,** 67.

Douthwaite, A. H. Medical Treatment of Peptic Ulcer. *Med. Pr.*, 1952, **227,** 195.

Forman, L. Refresher Course for General Practitioners. Warts of the Feet. *Brit. med. J.*, 1952, i, 480.

Harding, H. E., and another. The Experimental Production of Radiographic Shadows by the Inhalation of Industrial Dusts. Part II. Zircon ($ZrSiO_4$). *Brit. J. industr. Med.*, 1952, **9,** 70.

Hunt, J. N. Some Studies of Gastric Function (Arris and Gale Lecture). *Ann. R. Coll. Surg. Engl.*, 1952, **10,** 144.

Kalldegg, Anne, Davys, Michael, and O'Neill, Desmond. Migraine as a Stress Disorder. *Postgrad. med. J.*, 1952, **28,** 101.

Kilpatrick, F. R., and McLean, Kenneth. The Chemotherapy of Non-Tuberculous Infections of the Urinary Tract. *Postgrad med. J.*, 1952, **28,** 83.

Luntz, G. R. W. N. Sanatorium or Home? I. The Chest Clinic with Beds in a General Hospital. *N.A.P.T.*, 1952 (Feb.), p. 682.

Maizels, Montague, and another. Distribution of Phosphatases in Human Erythrocytes. *J. Physiol.*, 1952, **116,** 112.

Matthews, Ernest, and another. Further Fatigue Studies on Some Dental Resins. *Brit. dent. J.*, 1952, **92,** 91.

Nissim, J. A. Gluco-Corticoid Activity of Deoxycortone Acetate. *Nature*, 1952, **169,** 504.

Oliver, Leslie C., and another. A Simplified One-Stage Method of Cranioplasty with Acrylic Resin. *Brit. J. Surg.*, 1952, **39,** 371.

Parfitt, G. J., and another. The Assessment of Caries. *Brit. dent. J.*, 1952, **92,** 81.

Rees, R. J. W., and others. Depression of Tuberculin Sensitivity in Guinea-Pigs by Certain Antituberculous Surface-Active Agents. *Brit. med. J.*, 1952, i, 680.

Ripman, Hujohn A. Discussion on the Care of the New-Born Baby (Joint Meeting, Section of Pædiatrics with Section of Obstetrics and Gynæcology). *Proc. R. Soc. Med.*, 1952, **45,** 100.

Robson, J. M., and Sharaf, A. A. Effect of Adrenocorticotrophic Hormone (A.C.T.H.) and Cortisone on Pregnancy. *J. Physiol.*, 1952, **116,** 236.

Tulley, W. J. The Applied Anatomy of Orthodontics. *Dent. Rec.*, 1952, **72,** 13.

Worster-Drought, C. Intra-Cranial Aneurysm—Clinical Picture. *Brit. Encycl. Med. Pract., Int. Suppl. No.* 113, February, 1952.

Wright, E. A., and another. Two Cases of Giant-Cell Granuloma of Pituitary Gland. *J. Path. Bact.*, 1951, **63,** 69.

CHANGES OF ADDRESS

A. J. Bridge, M.R.C.S., L.R.C.P., L.D.S., 57, Harley Street, London, W.1. Tel.: Museum 2702.

A. C. Campbell, M.R.C.S., L.R.C.P., B.D.S., L.D.S., 57, Harley Street, London, W.1. Tel. : Museum 2702.

Miss Florence Taylor, 7, Talbot Houses, Blackheath, S.E.3.

BIRTHS

HALLINAN.—On February 21st, 1952, to Patricia (née Blackburne), wife of W. M. C. Hallinan, M.R.C.S., L.R.C.P.—a son (Brian Peter).

ROWE.—On March 6th, 1952, at King's College Hospital, to Patricia (née Flett), wife of A. H. R. Rowe, B.D.S.—a son (Paul Harold).

WILKS.—On March 18th, 1952, to Audrey (née Herne), wife of Mark Wilks, M.R.C.S., L.R.C.P.—a son.

MARRIAGE

O'CONNOR—LOMBARD.—On March 19th, 1952, at Munich, Germany, John L. O'Connor to Rosalie Daunt Lombard.

EDS. { P.A.Z. / E.E.D.T.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1663 19*th April* 1952 *One Shilling*

PASSIM

A VAST amount of research is being pursued at the present time into almost every compartment of human understanding. Indeed, scientific enquiry, if not exactly *de rigueur*, is certainly the vogue, and one to which so much faith is attached for the remedying of all human ills and the ultimate salvation of otherwise doomed mankind. Yet, though nature's secrets may be progressively revealed in consequence of this feverish enquiry, the great problem still remains of the manner in which these newly ascertained facts should be developed and utilised for eventual good. Almost a hundred years ago there appeared in the *Times* an obituary notice on Dr. Andrew Ure. Of this " pioneer in the application of scientific principles to the arts, industry and manufactures " it was said, he had " taken the lead in a movement which has had incalculable power in the development of the national wealth, and of promoting the interests of both science and art . . . " Today, unfortunately, there are so few to follow his example. With the current frenzy for research, basic knowledge accumulates in an almost logarithmic manner, while in Britain especially, where the wholesome respect for academic disinterestedness and a judicial lack of prejudice remains undiminished, the process of incorporating the newly discovered information into everyday technology and social practice lags a very long way behind.

In the realm of medicine all these features are adequately exemplified. Specialised workers in their hundreds are busily occupied with their own intricate techniques, only partially revealing themselves from time to time by their often far from elegant publications in their own esoteric journals. Certain candid critics have in fact declared that this obvious urge for getting stuff into print as a series of disjointed efforts, reflective more of an assiduousness than any breadth of vision, is, in itself, a malaise demanding of the sternest of counter-measures. At all events, the current literature in its entirety is quite beyond even the scanning of the average medical practitioner. Hidden within its pages, however, may well be facts that, viewed in their full relationships and synthesised by general principles, would afford to so-called suffering humanity considerable benefits that are long overdue.

Upon whom, among the profession, is this onerous yet vital responsibility to devolve ? Editors of the general medical journals, together with their annotators, play a very valuable part. Authors of new books, too, perform a valuable service in this respect. Above all, however, are those worthies among the ranks whose honour it is, from time to time, to deliver those lectures which are variously regarded as " endowed " or " memorial ". To them, so often, is the opportunity granted to survey the new advances, to draw the significant conclusions and, finally, to point the way ahead.

The trouble, as ever, is that all too few individuals are possessed of the requisite gifts adequately to discharge the obligations laid upon them in this way. What is more, the lessons to be learned have a two-fold importance ; one in the field of medical practice and the other as a stage in continuing research. What, moreover, is true of medicine as a whole is equally characteristic of the various centres and institutions at which it is practised. Even at Guy's, there are among those in the wards a few who are not just reasonably sceptical but, indeed, outrightly cynical of what goes on in the Medical School and laboratories across the Park. Contrariwise, it must be admitted, there are some in the School to whom the wards and the patients appear as a largely unexplored and uninviting territory. In medicine, of all subjects, an intellectual

vacuum is far from conducive to healthy advancement. Much and useful as the interchange of ideas may have been over the common-room tables, a further rapprochement has been required, and only recently the Department of Medicine has made a most useful contribution to this end. A programme of lectures has been devised (at five o'clock on Wednesdays in the Pathology Lecture Theatre), whereby the various heads of departments are given an opportunity to declare on their own research and to talk of the particular implications of the subjects in which they are interesting themselves. To judge by the titles published, the topics they have chosen are far from being as theoretical as many might have feared. Furthermore, those who have already spoken in this series have set a worthy standard that betokens well for the course as a whole. It is our intention to publish in the *Gazette*, over the course of the next few months, selected articles contributed in this way. Meanwhile, we hope that the response on the part of the audience will continue as encouraging as it has been so far. The attendance of a number of the senior clinicians has been noteworthy; the absence of many of their juniors can be attributed only to the exigencies of their duties and not to any lack of realisation of what they are missing. In time, perhaps, the reciprocal effect will be observed, and all to good advantage, when the more specialised and scientific workers can venture beyond the confines of the Medical School and attend such meetings of the clinicians as the combined rounds, so adding to these already admirable gatherings a wider scope that can be none other than desirable.

April — **ACADEMIC**

Exhibition. Surgical Department. "Minor Operations in General Practice."

21st	1.00.	Mr. Stamm. Clinical Lecture. "Chronic Arthritis of the Hip Joint."
22nd	1.00.	Mr. Blackburn. Clinical Lecture. "Abdominal Fistulæ."
23rd	5.00.	Mr. G. E. H. Foxon. "The Place of the Biologist in Medical Research with Special Reference to the Problem of Malaria." Pathology Lecture Theatre.
24th	5.00.	X-Ray Meeting. Gordon Museum.
25th	2.15.	Department of Medicine. Combined Round. Preclinical Classroom.
26th	10.00.	Dr. Forman. Skin Demonstration. Preclinical Classroom.
	10.30.	Department of Medicine. Annual Meeting of S.E. Regional Physicians.
28th	1.00.	Dr. Stafford Clark. Clinical Lecture. "Hypnotism and Hysteria."
	4.45.	Department of Child Health. Film Show. "Over the Road," "Playing with Fire," "Surprise Attack," "The Story of Dr. Jenner."
30th	5.00.	Professor G. A. D. Haslewood. "Problems in Steroid Metabolism—I." Pathology Lecture Theatre.

May

Exhibition. Surgical Department. "The Treatment of Peritonitis."

1st	1.00.	Dr. Moynahan. Clinical Lecture. "Athlete's Foot."
2nd	1.00.	Dr. MacLean. Clinical Lecture. "The Place of ACTH and Cortisone in Treatment."
	2.15.	Department of Medicine. Combined Round. Preclinical Classroom.
5th	1.00.	Mr. Cann. Clinical Lecture.
6th	1.00.	Dr. Bishop. Clinical Lecture.
7th	5.00.	Professor G. A. D. Haslewood. "Problems in Steroid Metabolism—II." Pathology Lecture Theatre.
8th	1.00.	Mr. Massie. Clinical Lecture.
9th	1.00.	Dr. Hardwick. Clinical Lecture.

WORLD HEALTH ORGANISATION

To the majority of people the letters W.H.O. suggest a vague organisation, with headquarters somewhere abroad, possessed of the most noble motives but achieving very little apart from the setting up of numerous committees and the declaration, from time to time, of faith in their endeavours. In fact, the World Health Organisation has been, and continues to be, a valuable agency for international collaboration on matters of health and disease. There is at present, in the Gordon Museum, an exhibition on this subject, which will remain open until the first week of May. One's only regret is that the features of this show, though good enough in themselves, are hardly staged in a manner to give one an idea of the work as a whole or, ineed, any inspiration personally to join in the efforts.

Vertigo

By Sir CHARLES P. SYMONDS, K.B.E., C.B., D.M., F.R.C.P.

A Clinical Lecture delivered at Guy's Hospital Medical School on Tuesday, 5th February, 1952.

LADIES AND GENTLEMEN,—Vertigo is the Latin word for giddiness, but in the medical vocabulary it means much more, or rather much less, than what most people mean by giddiness. People speak of giddiness when they mean what we should call faintness. Vertigo, medically speaking, is a sensation of unbalance, or dysequilibrium, resulting from a disorder of function in the labyrinths or their central connections.

If we can experience a sensation of unbalance, it might be thought that we could also experience the sensation of balance, but introspection tells us that this is not so. In walking, turning and stooping we do not, I think, have any positive sensation of balance—it is only if we are off balance that we are aware of balance at all. This is because equilibrium is normally maintained unconsciously at a reflex level. On the afferent side impulses arrive from the eyes, the muscles and joints, and the labyrinths. The reflex centres are in the brain stem and cerebellum. The motor nerves to the muscles of head, trunk and limbs are the efferent paths of the reflex arc.

The sensation of unbalance resulting from disorder of visual impressions can be experienced by anyone who attempts to walk whilst having double vision, which can be produced by displacing one eye slightly by finger pressure. The sensation of unbalance resulting from loss of afferent impulses from muscles and joints may be observed in patients with tabes, in which the posterior columns of the spinal cord are diseased. The sensation of unbalance resulting from disorder of function in the labyrinths or their nervous connections, however, is a different sensation, and it is this sensation only that we call vertigo. This sensation can easily be produced in oneself by twirling round rapidly several times and then standing still. It is a sensation of movement in surrounding objects and in oneself with a tendency to stagger or fall. This we may take as the prototype of vertigo, and in this connection I would observe that we are much dependent, in the analysis of symptoms, upon comparing our own sensations with those complained of by patients. If, for example, we ask a patient to describe a pain and he says it is like a toothache we all know what he means. So if we ask him to describe his giddiness and he says it is like the sensation you have if you have been twirling round we know what he means.

Now let us consider the varieties of vertigo met with in disease, but before doing so remind ourselves of a few facts of anatomy and physiology. In each labyrinth there are two end organs concerned with balance which have different functions. There are the semi-circular canals, which are adapted for the immediate registration of movement of the head. The impulses received by the semi-circular canals normally prevent the sensation of vertigo in the ordinary movements of turning and stooping. There is also the otolith end organ, adapted for the registration of alterations of posture of the head in relation to gravity. Each of these end organs has its own afferent fibres and central nuclei. The labyrinths are paired organs, and preservation of balance depends upon the fusion in the central nervous system of impulses arising from both organs. The central nervous mechanisms are able to compensate for defects in the end organs to a remarkable extent. If, for example, one labyrinth is destroyed the immediate result is severe vertigo, but in time this passes off. It is only when the central nervous mechanisms themselves are badly damaged that vertigo is persistent. As a general rule vertigo as a symptom of disease indicates a destructive lesion, though in acute lesions excessive stimulation may play a part.

After these preliminaries let us consider the description of their sensations given by patients with lesions of the labyrinth or its central connections.

First let us take the acute paroxysmal attack of vertigo with which you are all familiar because it is a very common complaint. This is a type of vertigo which it is easy to recognise. It is, as a rule, of sudden onset. The patient

experiences a sensation as though the whole world were spinning round him, and it may be spinning in any direction, or it may not necessarily be spinning, it may be passing rapidly from left to right, perhaps in the horizontal plane, occasionally obliquely or, again, the patient may feel as if the ground was coming up to meet him or the ceiling was coming down upon him. All these varieties of motion may be experienced, and with them there is sometimes a sensation within the patient as though he himself were subject to rotatory or vertical or lateral movement. Sometimes the sensation of movement in himself may occur without any illusion of movement in the surroundings. A patient with an acute attack of vertigo may say that he feels as if someone had suddenly pushed him over to one side or forward. In a severe attack of vertigo of acute onset the patient, if it siezes him while he is standing, may fall. These sensasions in severe attacks as a rule continue for some time, perhaps an hour or two. On other occasions an acute attack may be quite brief, and in that event the diagnosis may be rather more difficult, for the occurrence is so catastrophic and the time so short that the patient is unable to give any very clear account of what has happened except that he suddenly felt as if the whole world was moving about him until he found himself flat on the ground. Actually a patient may recover on occasion from a severe attack of vertigo of that kind within a few minutes. In these severe attacks of vertigo there are nearly always other symptoms, due to irradiation of the afferent stimuti within the brain stem. Nausea, vomiting, sweating, and extreme pallor are the common accompaniments of a severe attack of vertigo. The vomiting may be protracted as well as severe, and for this reason it is sometimes the most impressive symptom. Attacks of vertigo are often masked on account of the vomiting ; the patient regards his condition as due to a bilious attack because he goes on vomiting for so long. Thus the significance of the underlying vertigo escapes observation. It is quite common for severe attacks of vertigo to be mistakenly diagnosed as something else, either acute gastritis or perhaps food poisoning, a diagnosis which is often made ; or again, when there is a great deal of shock and nausea a cardiac condition may be suspected. Any patient who has paroxysmal attacks characterised by vomiting should be questioned about the existence of vertigo in the background.

So much for the acute attack of vertigo, which is easy to recognise on the whole except for its occasional brevity. But a patient with disease of the labyrinth or its central connections may have something at once much more chronic and much more slight. There may be periods extending over hours or days, or going on indefinitely, during which he continually, as he says, " feels giddy ", and if he is cross-examined as to what he means by " giddy " he will say that whenever he is moving he has a feeling of unsteadiness in his surroundings and in himself. Any quick movement exaggerates his condition. With it he often complains of feeling a little muddled in the head. This condition is very like that which some people experience as a result of motion —a slight chronic state of motion-sickness. Most of us have experienced it in ourselves. People react to motion in different ways, whether on the sea or in the air. Some never get sick at all ; others very quickly vomit and get over it, but others have a continuing state of slight dysequilibrium, with muzziness in the head and often a little nausea. Patients suffering from disease of the vestibular apparatus may present these symptoms. Patients with this chronic type of vertigo are very often diagnosed as neurotic.

A third type of vertigo which I think deserves separate consideration is really a liability to vertigo on certain movements. Some patients with disease of the labyrinth or its central connections do not feel giddy at all, unless they make a certain movement. The commonest movement is a quick turning of the head. Persons having this liability become frightened of crossing the road because the quick movement of the head to right and left throws them off balance so that they are inclined to fall. This liability may exist sometimes for quite a long while—even a week or two—in a patient with labyrinthine disease. During this period the patient may not have an acute attack of vertigo, he may be able to perform most movements without any sensation of unbalance at all, but certain movements which he comes to recognise will give him vertigo. A patient who has experience of his own past sensations will soon learn to recognise their oncoming. He will feel a little muzzy in the head in the morning, and

will try himself out by turning his head this way and that, and realise that he is going to have another bout of his old trouble.

There is a fourth variety of vertigo which has only recently been clearly described and which is due to an isolated affection either of the otolith end-organ or its central nervous connections. This type is called " positional vertigo." Like the last, it does not involve a continuous sensation of unbalance. It is a liability to a sense of unbalance when the posture is changed. It is quite distinct from the liability to vertigo on a quick turning movement which depends upon the semicircular canals. In positional vertigo the patient will say, for example, that if when in bed he lies on his right side, after a little delay—ten seconds or so—he will begin to feel violently giddy. If he goes on lying on that side the trouble probably passes off, although he learns from experience that there are certain postures that he had better avoid, so that he will take thereafter to sleeping on his left side instead of on his right. In testing a patient who presents himself with a complaint of this kind, if he lies supine with his head tilted back and manœuvred into different positions, there will be found to be vertigo and associated nystagmus. I have not said anything about nystagmus so far and I am not going to say very much. Nystagmus is an unsteady, jerky movement of the eyeballs when the patient is looking in a particular direction. Nystagmus is constantly present in the acute stage of a severe attack of vertigo. It is a very useful physical sign. It may or may not be present in the chronic slight form of vertigo. It is usually absent in the patient who has a liability to vertigo on quick movement, and it can only be provoked in the patient who has positional vertigo by reproducing the exact change of posture which is necessary to cause giddiness. When that is done, then, while the vertigo is at its height, the nystagmus can be observed. Therefore nystagmus, if present, is a very useful support for the diagnosis of vertigo, but it is not always present.

What is important to bear in mind is that these symptoms of vertigo that I have described—vertigo in all its variants—are localising symptoms. The patient who has vertigo in any of the forms I have mentioned must have a lesion of the vestibular end-organ or its central nervous connections. Having determined that a patient has got vertigo our next task is to make a more refined examination. Is the disease in the labyrinth, the eighth nerve, the brain stem or the cerebellum ? If the disease is in the end-organ the cochlear part of the labyrinth will almost certainly be involved as well, so that the patient complaining of vertigo will also complain of tinnitus and deafness. That also applies to a lesion of the eighth nerve, because the vestibular and cochlear nerve fibres travel together. The eighth nerve in the cerebello-pontine angle lies in such close contact with the fifth, sixth and seventh cranial nerves that one or other of these is nearly always involved if the site of the lesion is here. One of the commonest lesions in this situation is a neurofibroma of the eighth nerve. The early symptoms of eighth nerve tumour—deafness, tinnitus and vertigo—are very much like those of chronic labyrinthine disease. Therefore it is important to make a proper examination of the cranial nerve functions in any patient who has these symptoms. Impairment of the corneal reflex is usually the earliest sign, due to pressure upon the fifth nerve. In this way one will pick up the early diagnosis of eighth nerve tumour, and early diagnosis is very important because these are benign tumours and, taken early, can often be satisfactorily removed.

A lesion of the central nervous connections of the vestibular end-organ is almost certain to hit something else. The cranial nerve nuclei and the various ascending and descending tracts are so closely packed in the pons and medulla that a tumour or vascular lesion or whatever it is in that situation responsible for the vertigo will practically always reveal itself on neurological examination. There will be diplopia, numbness over the face, weakness of the palate or something of the kind.

Lesions of the cerebellum, which also has important connections with the vestibular nuclei, will also give rise to vertigo, but here we are helped by the fact that the cerebellum, although having an important function in connection with the maintenance of balance, has other functions as well. One of these is

co-ordination of voluntary movement. The patient who has vertigo as the result of a cerebellar lesion, if properly tested, will generally betray awkwardness in the performance of quick, alternating voluntary movement. He also nearly always has nystagmus whether vertigo is present or not. If we find no evidence of eighth nerve involvement, or brain stem lesion or cerebellar involvement, and the patient has deafness and tinnitus, then the lesion is almost certainly in the labyrinth, and most patients who complain of vertigo have in fact got labyrinthine disease.

Just as most patients who come complaining of vertigo are suffering from labyrinthine disease, so it is fairly safe to say that most patients suffering from labyrinthine disease are suffering from what is called " Ménière's Disease." Now, Ménière did not describe a disease at all—that is one of the misconceptions in the history of medicine. Ménière was the first person to appreciate that vertigo was usually symptomatic of labyrinthine disease. He had a patient who had deafness and tinnitus and very severe vertigo of acute onset who rapidly died. On post-mortem examination the lesion was found in the labyrinth. There is little doubt, although the case was reported before the era of the clinical thermometer, that that patient had an acute streptococcal labyrinthitis. Ménière really described not a disease but a syndrome. He said that with deafness, tinnitus and vertigo, and with no evidence of a central nervous lesion, there was a lesion of the labyrinth, but people misunderstood him regarding " Ménière's Disease " as a new disease, caused by hæmorrhage into the labyrinth. Ménière was really concerned with the problem of localisation, not of pathology, but as time has gone on a new concept of " Ménière's Disease " has developed. This concept has had two stages. First of all, with advancing knowledge, it was appreciated that trauma, tumour and chronic infection, and syphilis in certain cases, might account for labyrinthine lesions, producing deafness, tinnitus and vertigo. The vast majority of patients complaining of these symptoms, however, did not show evidence of any such pathological lesion, and these were lumped together and called " Ménière's Disease " in the same sense in which we use the term " idiopathic epilepsy "—that is to say, these were patients having this triad of symptoms, with no known pathology. That is the sense in which " Ménière's Disease " was employed for some time. During recent years, however, there have been a number of careful post-mortem observations showing distension of the endolymph spaces in patients suffering from chronic labyrinthine disease, and it has been assumed on fairly good grounds that the common cause of Ménière's syndrome—deafness, tinnitus and vertigo—is this peculiar labyrinthine hydrops. This now is spoken of as Ménière's Disease.

It may attack people of any age, though it is commoner in late middle life. It may begin with any of the three symptoms—deafness, tinnitus or vertigo. The deafness is high-tone deafness—nerve deafness—and the deafness and tinnitus, once they have appeared, are apt to be persistent. The vertigo, however, is intermittent. The patient with Ménière's Disease has bad patches every now and then, usually lasting for a matter of several weeks, during which he may have quite frequent paroxysmal attacks of vertigo, or at times vertigo of the chronic, slight, persistent type, during which he feels a little muzzy or unsteady. The vertigo to which he is liable may be either of the quick-movement or positional type. Having been through a bad spell, lasting anything from two days, it may be, up to six or eight weeks, he nearly always has a remission, which may last for weeks or months, sometimes for years. He may go on with his deafness and tinnitus but have no recurrence of vertigo for as long as (in one case of my own) twenty years. This tendency to spontaneous remission, therefore, is characteristic of the untreated disease, and must make one careful of assessing the effect of any medicinal treatment. It is due, I think, to lack of care in this respect that we have enthusiastic claims put forward for the cure of Ménière's Disease by this or that treatment —salt-free diet, ammonium chloride, nicotinic acid, anti-histamines, or whatever it may be. I am unconvinced by these claims because in none of the publications claiming success for any of these different methods of treatment have I noticed any adequate control series. If you are going to try to assess the value of any medicinal treatment in Ménière's Disease you must spread your observation over a number of years and must have an equal number of control cases.

In the treatment of patients during a bad phase such as we are discussing there is no doubt that any of the drugs which favourably affect motion sickness also favourably affect patients with giddiness. If a patient is going through a bad spell then any of the proprietary remedies against sea sickness, taken from time to time, will help. The giving of small doses of hyoscine, from 1/200th to 1/100th grain, by the mouth twice a day, is certainly helpful. The barbiturates—small doses of phenobarbitone—are often given, but are not as effective as hyoscine. It should be noted that hyoscine even in these doses may have unpleasant side effects, such as dryness of the mouth, and a patient has to learn for himself whether it is worth while taking it or not.

In the treatment of a very severe attack of vertigo there is no means of relief except morphia, and the giving of morphia is occasionally justified. A severe attack of vertigo can be quite catastrophic. I have here a record of his case made by a man many years ago describing his own sufferings. He had a typical Ménière's Disease. He is a general surgeon who says that he has forgotten all he ever learned about the anatomy of the labyrinth and the central nervous system, so that he regards himself as unprejudiced, although scientifically trained ! He wrote this out without any prompting at all from me. The first thing he says is : " My attacks of vertigo since their onset have tended to come in bouts, each lasting a few weeks and being followed by a clear interval of weeks or months (one clear interval lasted 13 months)." He says that the beginning of a bout tends to be severe. The attacks come on with some degree of regularity, usually in the early morning. He goes on to talk about waking up sometimes feeling that an attack has already begun, and then he describes his sensations during a severe attack.

" I woke up about 4 a.m., and was at once conscious that something was wrong. The slightest movement produced the most acute and distressing giddiness, and after a few minutes the mere thought or suggestion of movement filled me with terror. After an interval of perhaps half-an-hour nausea supervened, and was followed by vomiting. The vomiting on this occasion was more severe than any I have ever seen in any other patient from any cause. It seemed to me that I strained and retched until completely exhausted, and after a few moments' rest used my accumulated energy to vomit again."

He adds that the vomiting lasted about an hour and a half and the giddiness persisted during the greater part of the period of vomiting. The whole attack lasted about two and a half hours, excluding the period of exhaustion which followed. He also says that treatment is no part of his subject, but in the worst attacks morphia is invaluable.

If a patient is suffering from Ménière's Disease with vertigo you can help him to endure it and give him anti-seasickness remedies, and he is likely to have a remission sooner or later. But as time goes on the remissions tend to become shorter and the vertigo more disabling. Then the right treatment is section of the vestibular nerve by a neuro-surgeon. An alternative method that has long been used is destruction of the labyrinth by alcohol injection, but section of the eighth nerve is the more certain procedure. It is, I think, no more upsetting than alcohol injection, and it appears that in some cases the nerve section not only renders the patient immune from vertigo but also relieves him of the tinnitus, which can be a very distressing symptom. At the same time nobody, of course, should be in a hurry to recommend eighth nerve section for this disease so long as the patient has useful hearing on the affected side. It is a big price to pay for the relief of vertigo to destroy the hearing, all the more so because, although Ménière's Disease generally is unilateral, it may affect both ears. To destroy the hearing in one ear in order to relieve the vertigo and then find the patient go deaf in the other ear is a tragedy. But if the vertigo is disabling and the patient's hearing is seriously diminished and the affection is unilateral, then one should not delay advising vestibular nerve section.

There are two things I hope you will remember from this lecture. The first is that if a patient complains of giddiness it is your business to analyse what he means by giddiness and find out whether it is true vertigo. The second is that if you can conclude that what he is complaining of is true vertigo it follows that he must have a disorder of function in his labyrinth or its central connections which, after all, has taken you quite a long way on the path to diagnosis.

Ocular Conditions in Animals*

By O. GAYER MORGAN, M.Ch., F.R.C.S.

Paper read at a joint meeting of the Section of Ophthalmology and Section of Comparative Medicine, at the Royal Society of Medicine, on 9th February, 1952.

ALTHOUGH I feel that my knowledge of the ocular conditions met with in animals is somewhat limited, yet perhaps the following experiences in practice may be of some interest to veterinary surgeons.

I have been lucky in having as a friend a very busy veterinary surgeon and so have been consulted by him on quite a number of cases of difficulty where the eyes were affected. These have all been dogs and included such conditions as conjunctivitis, keratitis, foreign bodies, corneal ulcers, dislocated lenses and cataract, and cases in which there was doubt as to whether the patient was blind in an eye or not. It has been an interesting experience and I strongly recommend it to others, as the dog is a remarkably well-behaved patient and it is very unusual for one to have any real apprehension about the examination. My best patient was the dog which took part in the film of "Three Men in a Boat—And the Dog." Its intelligence quotient would have made some of my bipeds quite envious.

To illustrate the problems which may come along I will describe a case of much interest in a most perfectly groomed bob-tailed sheep dog which was supposed to be partially blind, although there was nothing in the pedigree to suggest it. When in the consulting room he certainly bumped into objects which I put in his path and yet the media and fundi seemed quite normal. It suddenly struck me that the wonderful care with which the hair over the eyes was combed might be responsible, so I advised tying it up over his forehead. From that moment he was a different dog. In natural surroundings the hair across the eyes is matted with mud and so forms only a few protective locks with chinks in between for distinct vision ; in the case of this patient it formed an almost impenetrable curtain.

The differential diagnosis of conjunctivitis and foreign bodies is often quite difficult, and the history from someone in charge and the behaviour of the patient are both very important. Recently I had a dog brought to me by its owner in which the veterinary surgeon had tried the usual remedies for conjunctivitis. The owner gave me to understand that both eyes were half closed and there was discharge. I could see that the left eye was half closed and the third eyelid drawn over the cornea which was quite bright. I ordered some lotion. A week later the condition was the same and the dog very unhappy. The veterinary surgeon then came and from his evidence I was sure the lesion was in the left eye only. We examined for a foreign body behind the third eyelid and then, on eversion of the upper lid, I noticed a little speck of mucus. On wiping this away I could see with the binocular loupe a black spot and with lash forceps removed a hair-like bristle from one of the mucous glands over the tarsal plate. There was immediate relief on all sides and especially to the patient.

Keratitis, both superficial and interstitial, with the formation of new vessels is not uncommon—possibly trauma plays an important part, but my impression is that nutritional deficiencies are not common even though dogs have a very curious and what we would consider unbalanced diet. I used to put them on raw liver before the War and it seemed to help in some of them. I have had only one case of squint and that was a divergent one in a Peke. It was a valuable dog but never did well in the showroom as the judge would not overlook the defect. I operated on it at the Westminster Ophthalmic Hospital and had as my assistant Mr. Keith Lyle when, I think, he was R.M.O. there. We made a moderately satisfactory correction but the case is perhaps memorable as I feel it may have been partly instrumental in directing Mr. Lyle's interest to the rectification of muscle defects in human beings.

Before going on to my main contribution to the subject to-night of the treatment of dislocated lenses and cataract, perhaps I may digress to suggest that we should be prepared to help the veterinary surgeon in the ophthalmic work which comes his way, especially where dogs are concerned. They mean so much to their owners and often develop eye diseases at a time when they have many years of useful and faithful service. They suffer from cataract and

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dislocated lenses at an early age and the operative treatment of these two conditions is not readily undertaken by the veterinary surgeon as he naturally finds it to be a highly specialised study. There is not much literature on the subject but in one fairly comprehensive account of cure of cataracts in dogs, the method used was couching into the vitreous by a needle inserted behind the ciliary body ; I do know, however, that some veterinary surgeons in this country do use the anterior approach after a corneal section. From our point of view, also, the practical experience is valuable as there are several added difficulties to be overcome. I have done only seven cataract extractions altogether but have, I think, developed a technique which seems to suit the changed anatomical conditions. Some have been operated on in hospital and some by kind permission of Mr. Knight in his most up-to-date operating theatre at the Royal Veterinary College. Of these, one was a successful intracapsular extraction, two started as intracapsular but ended up as extracapsular, three were extracapsular from the start and two were removed with the Vectis. The points one would like to emphasise in operative technique are as follows :—

The usual precautions as to the type of cataract must be taken. Dogs get juvenile and senile, traumatic and diabetic cataracts.

Atropine drops or ointment beforehand usually give adequate midriasis.

Anæsthetic is by intravenous injection of nembutal, a large dose being given (1/5 grain per lb. of bodyweight). The animal is absolutely quiet and remains so for two hours or more and suffers no after-effects.

The hair is shaved from the lids and the skin cleaned and then the head is propped up for operation by our usual method, from above and behind.

The upper blade of the retractor takes in the upper lid and the lower the third eyelid and lower lid. A canthotomy is advisable in all cases, but even with this the exposure is poor, only the upper part of the limbus being visible. A retro-ocular injection of saline has been tried, but it predisposes to loss of vitreous and traction sutures on the inner and outer sides of the globe are not of much use and distort the globe when once the section has been started. I have found it better to insert a corneo-scleral suture and then do a minimal section with the Graefe and enlarge the wound on both sides with Sinclair's scissors. The section must be reasonably large as the proportional size of lens to eye is 1–18 in man and only 1–10 in the dog. The assistant holds the corneal part of the suture and gently retracts it forward, thus ensuring a very good exposure of the lens capsule which can be seized with capsule forceps and the usual attempt made to extract the lens intact. An iridectomy is inadvisable as the iris is thick and vascular and oozes much more readily than the human iris when cut. In my successful intracapsular extraction the lens came away fairly easily but, on lifting it out, I found that the vitreous was adherent to it at the posterior pole and a globular mass of vitreous came with the lens. I do not know if this is usual or if it is a separate part of the vitreous, perhaps the primary vitreous, but it is disconcerting. In the unsuccessful intracapsular extractions the capsule ruptured at the posterior pole and the whole capsule came away as a bag, leaving the lens lying in position. This could be picked out intact quite easily without loss of any vitreous. The extracapsular extractions proved how very thick the anterior capsule was and it was very difficult with capsulectomy forceps to remove it, but when this was done the cataractous lens could be expressed and helped out with a cystotome. This extracted portion resembles a lily bulb and has hard segments which break off easily. The Vectis cases were done when I thought I could not extract in any other way, but I think they can be avoided with better technique. After removal of the lens the corneo-scleral suture is tied and the iris replaced if necessary. Penicillin ointment is inserted between the lids and these are closed. I have tried a temporary mattress suture of the lids as a safeguard but do not think this is wise as the dog may not like it and may get his claw under it ; also an Elizabethan collar, but this is cumbersome and makes the patient look as if he had been treated for some political crime behind the iron curtain, and I am sure it must be most uncomfortable. The results show that the wound heals well and in most cases the resultant fundus reflex is reasonably normal.

Apparently the refraction of normal dog's eyes shows that hypermetropia, myopia and astigmatism are very similar in proportion to those found in the human being and so visual acuity afterwards without glasses must be rather poor. However, a dog needs to see objects only to avoid them, its main pleasures

coming through its other senses. Although a dog does fix with its macula, there is a lack of differentiation in the retinal layers which indicates a normal low visual acuity. The accommodative power in a dog has been worked out by different methods of dynamic refraction and apparently it consists of only about two to three diopters. This explains the somewhat rudimentary ciliary body.

A curious phenomenon in dogs is that the pupil dilates on looking at a near object and contracts for distant vision.

Dislocated lenses has been the subject of a very interesting paper by Professor Formston (Formston, 1945) and so I will mention only a few points which result from my attempts to remove some of them. They were originally thought to be traumatic, but Professor Formston has shown that they occur in certain breeds, chiefly wire-haired terriers (90 per cent.) and Sealyhams (10 per cent.). Pekes, which are most prone to trauma, never get dislocated lenses. The corneal opacities which seemed to indicate trauma are secondary to the glaucoma which nearly always supervenes and which in the dog leads to hydrophthalmos. The iridodonesis is first noticed at an early age —two years ; this increases and the lens becomes cataractous and dislocated. It would appear as if removal of the lens should be undertaken in the early stages by intracapsular extraction if possible. Later, when dislocated, a Vectis is needed and as the lens of a dog is relatively large, a large-sized Vectis is preferable. The retina is relatively close to the back of the lens and is easily damaged by too deep a plunge with the Vectis.

As far as I can find out, the occurrence of sympathetic ophthalmia has not been noted in dogs either after penetrating injury with incarceration of iris or after operation. One wonders how they do it, and what one should learn from this remarkable freedom from such a serious complication.

I hope I have been able to show that collaboration with a veterinary surgeon does bring a number of interesting and instructive cases for us to diagnosis and treatment.

REFERENCE

FORMSTON, C. (1945.) *J. comp. Path.* 55. 168.

UNIVERSITIES' MISSION TO CENTRAL AFRICA

We are pleased to draw the attention of readers to the following extract from a letter recently received by the Dean from Miss Mary King, U.M.C.A., Korogwe Clinic, Tanga Province, Tanganyika, East Africa :—

" I have been nursing with the above Mission (which was founded by David Livingstone) for the past seven years. I was at Guy's from 1930–1933.

Several times lately I have thought some members of Guy's Medical School might like to help us if they knew of our needs. We should be extremely grateful if at any time anyone could spare us any dental forceps or a microscope or any medical textbooks for African dispensers to read.

At this clinic we have 50 beds, 30 for midwifery patients and 20 for general patients, women and children only—all male patients are treated at the Government hospital.

We are visited by our Mission Doctor and our staff consists of :

2 European nurses, S.R.N., S.C.M.

4 Grade I African Dispensers (Bi-lingual, English and Swahili).

1 African dresser.

8 African nurses, Swahili-speaking only.

Last year we had 325 deliveries and admitted 650 general patients. The main diseases we treat are ; Malaria, Ankylostomaisis, Ascaris, Bilharzia, Pneumonia, Measles, Whooping Cough, Ulcers, Conjunctivitis, diseases due to deficiencies in diet, various septic conditions and occasionally Tetanus and Typhoid Fever.

Needless to say, many patients come wearing charms and cannot yet give up their faith in witchcraft of one form or another. Lack of sanitation and ignorance are two of our greatest enemies.

We should be most grateful for a place in your prayers from time to time and we desperately need more workers. We are a mission of the Church of England. I am not allowed to appeal for any particular hospital but gifts may be ear-marked. Our H.Q. in London is :—

U.M.C.A., 35, Great Peter Street, London, S.W.1."

Notes from a Diary: A Visit to Johns Hopkins Hospital in 1951

By PHILIP EVANS

(*concluded*)

CASE 11. *October 24th.*

Clinicopathological conference. A 31 years old woman, who had been treated for syphilis and still had a positive W.R., collapsed unconscious in church and recovered in a few hours. Four days later she became unconscious again and was admitted. She was febrile for a short time. There were signs of chronic arthritis, an apical systolic murmur and thrill, general weakness more marked on the left than the right. She never really regained consciousness, and some weeks later she developed pneumonia and died. There were pages of laboratory reports. Dr. Harvey gave a most accomplished full-dress differential diagnosis, eventually favouring disseminated lupus erythematosus.

Dr. Rich spoke for two minutes—here the heart, perfectly normal, rather small perhaps. Here the extensive pneumonia, look at it in the section also. Here is the rather large pancreatic insuloma, here the diffuse vacuolation of cerebral cells, the reason for her not regaining consciousness.

These dramatic shows are immensely entertaining, although they often, as in this case, leave much unanswered, e.g., evidence of syphilis, type of arthritis.

An early blood and C.S.F. examination had shown only 12 mgm. sugar/100 cc. but as intravenous glucose had no clinical effect and as subsequent examinations had been normal the low figure was attributed to starvation.

This is the third case of hypoglycæmic coma in a non-diabetic I have encountered in one week.

CASE 12. *November 1st.*

Congenital bladder-neck stenosis—cystostomy—anuria, perhaps due to lower nephron nephrosis.

After the presentation of the case, Dr. Harrison had only five minutes to discuss it, which he did admirably. He said the great thing in saving these anuric patients was not to kill them by over-loading them with water or electrolytes. Water could be calculated as 45 cc. 100 calories metabolised day. In this particular feeble baby the basal metabolism was probably 60 calories/kilo, so with a weight of 4 kilo the water requirement was $\frac{4 \times 60 \times 45}{100} = 110$ cc. daily, which was about what had been given.

As anuria continues the plasma bicarbonate diminishes, and you can correct this with lactate, but this may introduce too much electrolyte and it is probably better to leave the acidosis uncorrected.

After a week, start to think of artificial kidney, peritoneal dialysis, etc., but babies do not stand up to these manœuvres well, and you probably save more lives by avoiding them.

Ca has to be watched, and as it drops it should be replaced by intravenous $CaCl_2$.

K rises, possibly to dangerous levels, and oral ion-exchange resins offer the possibility of bringing them down by getting excretion of K in the stools.

In the recovery period there is often diuresis, and at this time you must watch carefully to see that too much electrolyte is not washed out.

CASE 13. *November 6th.*

A 5 months old baby developed upper respiratory infection. Ephedrine nose drops, three-hourly, and aspirin gr. 2½, four-hourly, were recommended. The mother followed this advice " faithfully "—poor thing, she must have had little rest—9 p.m., 10 p.m., midnight, 3 a.m., 4 a.m., 6 a.m.—for 2½ days, when she brought the baby to the O.P.D. in the night, as her seemed to be worse and he was vomiting.

The intern recognised Kussmaul respiration, and diagnosed salicylate poisoning. Examination of urine and of blood supported the diagnosis ; in

addition the CO_2 combining power was low, while Na, K, Cl, and non-protein nitrogen were high, I suppose as a result of dehydration.

He was treated with " 1 2 3 mixture " intravenously (1 part $\frac{1}{8}$ molar lactate, 2 parts saline, 3 parts glucose) and the acidosis was corrected.

On the evening after admission the nose bled, next day there was blood in two stools, and he started twitching. The C.S.F., which had been normal on the previous day, contained a few blood corpuscles and Pandy's test was positive. Prothrombin was 25% of normal.

Salicylism appears to be commoner in the U.S. then in England, and I was the only person in the room who did not know that it produced hypoprothrombinæmia.

CASE 14. *November 8th.*

A baby developed eczema at two weeks and had it quite severely until at six months the mother put the child on water, vegetables, and a soya bean substitute for milk, and nothing else. Now he is nine months old. On November 4th he had a convulsion, controlled by phenobarbitone. Next day he went into status epilepticus. He was admitted on November 6th, and given more phenobarbitone. On November 7th generalised œdema appeared.

He is pale but not anæmic ; in coma, with light sighing respiration ; the heart is not enlarged ; the tendon reflexes are sluggish. The urine is now normal although yesterday it contained sugar but no ketones, the C.S.F. sugar was 112 mgm. per cent on admission and the blood sugar was 208. There were red corpuscles in the C.S.F. but the bleeding may have been due to the puncture.

The only umbrella under which I can fit coma, hyperglycæmia and œdema is vitamin B deficiency, which I think he might have on his restricted diet. As I have never seen Wernicke's encephalopathy or beri beri I don't feel much confidence in the diagnosis. There would have to be in addition some deficiency of protein (and he must have lost protein when he had exudative eczema) for I imagine that in wet beri beri there is always cardiac enlargement, which he does not show.

INTERNS

October 17th.

Each year 5,000 medical students graduate, and there are 7,500 vacancies for interns. In some hospitals interns have been selected as early as in the third year of training, and there has been unpleasant competition between hospitals. So this year a new method of selection, " only possible in America," is being used. Applicants indicate the posts they want, in order of preference. Hospitals indicate their order of preference of the applicants. The cards go into a huge machine in Chicago, which revolves and turns out the lists of interns.

This mechanised process is unpopular, but it seems a fair and sensible way of preventing the awkwardness that now arises when, for example, a man wants a particular job in Baltimore, as his first choice, and does not know what to do when he is offered his second preference elsewhere, a month before the Baltimore appointments are made.

To eliminate the personal factor in correcting examination papers machines are often used. Questions have to take the form of a *Sunday Express* quiz., viz. :

A cataplasm is :

A crisis in an acute infection	
A skin disease	
A plaster	
An extract of ephedra sinica	
A manifestation of schizophrenia	

Put a cross in the appropriate space.

Interns here work ordinarily from 9 a.m. to about midnight, but there is a good deal of variation and they are often up at night. Only one has developed tuberculosis this year, perhaps because their meals are free and they eat enormously.

Pædiatric interns find their period in the Out-Patient Department a great strain. Work starts at 9.30 a.m. and may for some go on until 4 a.m. next day. There are nearly 45,000 visits a year (not counting the 5,000 private O.P.D. visits, which are looked after quite separately), but Childs says that there are about 5,000 completely new patients a year, and about three visits for each illness in the ordinary case (the 45,000 probably includes figures for special clinics like the Seizure Clinic, the Diabetic Clinic, etc.). One reason for the load on the O.P.D. is that for each patient, even if he has only a minor ailment, the intern takes the family and personal history, makes a complete physical examination, examines the urine, does a blood count, and obtains blood for a W.R. or similar test. In addition he may fluoroscope the chest, take cultures, do a lumbar puncture and give intravenous saline. Many quite sick patients are not admitted but are treated as out-patients. Some of the investigations are a waste of time, many could be done by technicians, but " the interns in the O.P.D. certainly do pick up some pathology ", i.e., discover evidence of organic disease where it was not expected. The experience is good, the hours are long, but it is the underlying worry that he may make a mistake which really makes the work seem so burdensome to the young intern. In this way it is not a bad prelude to practice.

When he is on the wards the intern has a lot to do with his nine patients, as they are usually acutely ill and often complicated, and are " worked up " in such detail. He has to attend the Resident's rounds, and should attend Visiting Rounds and the daily Noon Conferences. When his year is over he knows a lot of pædiatrics.

COSTS

October 26th. Baltimore.

Interviewed by newspaper reporter. We got hopelessly bogged down over the relative cost of hospital care here and in England.

The charge for a first O.P. visit is about £2 10*s.* 0*d.*, not including drugs, X-rays, etc. (a chest X-ray for instance will cost nearly £4, an intravenous pyelogram £11). A subsequent visit costs £1. Semi-private and private O.P's. are of course more expensive, the first visit for a private patient costing his parents £18. These fees go to the hospital.

The charges for maintenance in hospital are less than the cost, but are big enough. Ordinary patients are charged nearly £4 a day, exclusive of X-rays, etc. If special nursing is needed round the clock the extra charge is £13 a day. Semi-private patients pay very little more for these things, but they of course do pay the doctor.

Many people insure themselves for their first 21 days in hospital. If patients cannot pay, the city in which they live may pay something, e.g., Baltimore City will pay £3 10*s.* 0*d.* or so a day. The charges for an admission which is largely for follow-up or research purposes are paid out of the particular research fund. If no one will pay for a particular patient it is the hospital's misfortune.

November 11th. Durham, N.C.

Duke Hospital has a rather intimate and easy mix-up of private and ordinary patients I had the impression that often the doctors did not know which was which. In the depression 15% were private, now 40% are. Anxiety over expenditure is not obvious. The hospital has a good reputation locally and is well supported.

November 5th. Baltimore.

Discussion of N.H.S. Many questions. Lunched with practising pædiatricians afterwards. The average annual earnings of a pædiatric practitioner (who is highly trained but is not necessarily a consultant) were estimated at £5,500 a couple of years ago. This is not as much as it sounds, for living is very expensive. The pædiatrician works very hard, has possibly more night work than a general practitioner, and cannot usually afford long holidays.

BABIES

October 23rd. Baltimore.

Watched Shaffer examine a healthy new-born baby at Sinai. The doctor does not enter the nursery but stands in front of a hatch. He does not wear a mask, but he washes, puts on a clean gown and uses clean (I suppose sterilised) stethoscope and tape measure. The naked baby is placed on grease-proof paper on a platform in the nursery. The platform is on a pivot and is swung round so that it presents in the hatch.

On the corridor side of the nursery there are plate glass windows, with blinds, and a notice saying :

> " Viewing times 3.30—4 and 7.30—8. No baby will be lifted up after the first viewing. Do not tap on the glass, all babies go in row nearest window in turn."

November 9th. Durham.

Dr. Mac Bryde showed me the premature nurseries in the obstetric department. Negro mothers, if there is no complication, go home after 12 hours, when it can usually be seen that mother and baby are doing well. White mothers usually stay a few days, perhaps a week. They have a good deal of Grantly Dick Read and very little sedation. I asked one, who had had her first baby with anæsthesia, in Boston, which she preferred and she had no doubt. This experience seems to be common. There is a nice and cheerful air in the department. The mothers particularly enjoy having a shower a few hours after the child is born. They get up for breakfast on the second day, i.e., as little as eight hours after delivery. They like having the baby in the ward instead of away in a nursery. Enthusiasm for breast feeding is growing although by English standards it is still small.

October 24th. Baltimore.

Almost all the babies admitted to the Premature Unit weigh less than 4 lb. so all go into incubators. " Isolettes " seem to be reliable and easy to manage, and convenient enough for nursing, feeding, etc. Observation is excellent, as the babies lie naked under a bright light and the incubator is made of transparent plastic material. The temperature is kept at 90^0 and the humidity as high as it will go.

A tiny baby with E. coli septicæmia died while I was there. He was given intracardiac adrenalin and intermittent positive pressure oxygen. He had been on penicillin and streptomycin from the start, as this is the routine unless the child is born in Johns Hopkins of a mother who is known not to be infected.

October 27th.

Dr. Janet Hardy said that the larger of two surviving triplets was to be transfused. He weighed 2 lb. and this seemed to me to present quite a problem. The Assistant Resident was not at all worried, he said he would do it with a hypodermic needle, in the hand or the scalp.

Saw the Bloxom apparatus which is sometimes used for resuscitation. The baby is put in a cylinder. Oxygen is rushed in at 8 litres a minute, and air at 5 litres a minute. When a pressure of three atmospheres is reached it blows off, and the valve lets the pressure down to one atmosphere, when the cycle is repeated. It sounds rather like going down Pike's Peak and up again every four seconds.

ADRENALS

October 30th.

Sat in on Lawson Wilkins' discussion with his staff of about eight endocrine research workers, the latest addition being a Guy's man (Gordon Kennedy). Much of the discussion was above my head but the method of integrating the work was interesting. First they went over the patients who were due to come into hospital and decided what they wanted to do with them. Then each worker brought out his own problems and projects and they were discussed. Finally there was a review of the papers they were writing.

November 13th.

Wilkins tries to keep 17 ketosteroids excretion down to 8 mgm. a day in older patients and 0·8 mgm. in babies, when treating virilism, due to suprarenal hyperplasia, with cortisone. The average dose for older children is 7 mg.

intramuscularly every third day, or about 17 mg. t.d.s. orally. Babies need about 5 mg. intramuscularly or 12·5 mg. orally every day, but the need is individual and dosage should be controlled by chemistry as in diabetes. For salt-losing babies he treats with salt and DOCA first. This is partially successful, and then enough cortisone is added to produce normal chemical findings.

November 22nd. Montreal.

Pædiatric surgical conference on two cases of suprarenal virilism in which the tumour had been removed. One dose of cortisone was given pre-operatively and cortisone and ACTH post-operatively, with no DOCA or intravenous saline—simple and successful. The old method of injecting air around the kidney for X-ray purposes has been abandoned as the kidney moves with respiration, vessels get torn, air is injected under pressure, and air embolism has resulted. Now a spinal needle is inserted 1 cm. lateral to the tip of the coccyx and half the air (e.g., 600 cc. in an adult) is injected into the presacral space. The patient is left lying on his side for three minutes, then turned over so that the other half can be injected. Afterwards he walks around for twenty minutes or so. Then a pyelogram is done and the kidney, suprarenals and liver are often well outlined by air.

THE SPEECH AND HEARING CLINIC

October 31st.

Spent the morning in the Hearing and Speech Clinic with Drs. William Hardy, John Bordley and Pauls. In the boy of 17 months whom I saw, deafness had been noticed at eight months. He could feel a tap on the floor and was thought to have heard a loud scream on one occasion.

After the family and personal history had been obtained, he was examined for evidence of E.N.T. disease, and his pharynx was found to be bunged up with lymphoid tissue.

While his hearing was being tested his parents stayed in the room, but sat behind him while he was brilliantly managed by Dr. Pauls. They all went into a sound-proof room, while we went into a control room and watched through a window. First he was tested with monitored voice, and it seemed that he heard something once or twice. Then a background noise with no predominant tone was tried, with varying intensity. He did not respond to it. This noise was replaced by pure tones and again he seemed not to hear them.

In another room two electrodes were fixed to his calf. A shocking current, just enough to make him kick but not enough to make him cry out, was put through these. Two more electrodes were put on two fingers, and leads from them went to an apparatus which measured his skin resistance and recorded it in ink on paper. Head phones were put on him so that each ear could be tested separately.

Noise, going through the ranges of frequency and intensity, was produced in one earphone, and followed by a momentary shock. If the child hears the noise he associates it with the shock, so that soon noise causes apprehension and this lowers skin resistance. The lowest intensity at which a tone is heard is thus recorded on paper, and the audiogram can be completed.

As Dr. Hardy pointed out, for these children noise is as yet meaningless and they do not listen, so that it is often a good thing for them to be disturbed and a little unhappy or anxious during examination. In this case the testing of both ears took about three quarters of an hour, and then quite suddenly the boy became unhappy and obviously wished to sleep. He was sent away to get a nap and lunch, after which the testing will be repeated.

As soon as possible the adenoids will be removed surgically, and the other lymphoid tissue treated with radon. Hearing will then be tested again, and treatment started. As this child is not totally deaf, the first thing will be to get the parents to stop thinking that there are only deafness and not-deafness, and to realise that there are degrees of hearing, and that this child can hear such and such. On this basis speech can then be developed as part of the whole means of self expression used in an interesting life, rather than by formal exercises in speech training.

MISCELLANY

October 15th. Baltimore.

In the course of his first Herter lecture on the homogeneity of protein, the distinguished chemist whose name escapes me said : " Carlsberg is the only brewery I know of directed by five professors. Three are scientists, but one is a professor of Semitic languages and one of Comparative Philology. The professor of Semitic languages is best, he knows everything and has a complete grasp of brewing."

October 16th.

Will Forbes points out that tropical hygiene has, for natural reasons, worked on the wrong line by attacking acute killing-diseases instead of the chronic diseases which cut down production. Now in India cholera is controlled but not malaria, and since 1800 the wealth of the country had been doubled while the population has been quadrupled.

October 17th.

Excellent weekly X-ray conference. The films are put up, the radiologist is told the child's age and then he comments on the pictures. *After* he has given his opinion the clinical story is given by the intern. Dr. Brown was amazingly accurate.

Russell Morgan has designed a fluoroscope which projects the picture on to a television screen. This gives better definition and also does away with the tedious business of getting one's eyes adapted.

October 19th.

Internal jugular puncture has gone out, in favour of femoral artery puncture, which is more painful and may be followed by arterial spasm. As the biochemistry is done in the main laboratory micro-methods are not used for children, and 150 cc. of blood or more may be taken, necessitating transfusion in small babies.

October 20th.

Definition of a Cook County child : one whose W.R. exceeds his I.Q.

October 22nd.

Feeling I would like a night cap, I went to a drug store and bought a pint of whiskey. Very statistical label : " 86 proof. The straight whiskies in this product are four years or more old. 28% straight whiskies, 72% grain neutral spirits ; 25% straight whiskies four years old, 3% straight whiskies five years old."

" Not a drop is sold till it's seven years old " demands less from the reader.

October 23rd.

Extracts from conversation at dinner :

1. " Well Bessie is quite an *old* car now. I think she'll have to winter in Florida this year. Of course I shall have to go along with her."

2. " Did you meet Dick Day in New York ? He and his family are delightful ; very Bohemian, they ride bicycles."

3. " Well he came home and said he was engaged, and I asked where he'd met her and he said, ' at the ice-rink.' I asked who she was and he said, ' Oh, no one you'd know, Mom,' so of course I was worried, but he brought her out on Sunday and d'you know ? I found she and I were seventh cousins."

October 26th.

Dinner with the Caduceus Club at Dr. Blalock's home. Cocktails served out of an enormous lighthouse signed by all the members since the Club was founded in 1923. I was asked to speak on the result of the General Election, and did so briefly but managed to change the subject to the occasion, last June, when the Rector Magnificus of Turin University gave Blalock an honorary M.D. while all the Italian women murmured to one another : " Ecco, comé simpatico, e semplice ma *comé* simpatico."

October 27th.

Medical round ; the Assistant Residents presented four patients with hypercalcæmia : one had sarcidosis, one myelomatosis, a third bone sarcomatosis, and the fourth a parathyroid tumour which became palpable and tender, while the serum calcium became normal. (John Howard diagnosed

this as thrombosis of the vessels supplying the tumour, this was later confirmed at operation). He gave a very clear account of hypercalcæmia, picturing man as an animal with 99% of the calcium in bone and 1% in blood, maintaining homeostasis in blood and in urinary excretion by using the bone as an elastic compartment for calcium. The only thing which diminishes blood calcium rapidly is removal of the parathyroids. Parathormone thus regulates the calcium level, but it affects the matrix substance as well as the calcium. Study of the matrix, whether in bone or in pathological tissue elsewhere, is likely to be fruitful.

Joe Lilienthal took me to lunch at the Hamilton Street Club. Fourteen interesting men, not counting myself. I sat between Philip Bard the physiologist (very entertaining about his recent visit to S. America) and Emmet White, a lawyer and expert on Chinese art.

November 3rd.

Sat next to Mrs. Edwards at dinner and told her that her son Jimmy's professorial lecture at Guy's had been much appreciated.

Dr. Te Linde evidently enjoyed his recent visit to Guy's a great deal.

November 7th.

Dr. and Mrs. X. took me back to the Hospital. I can never win an argument with a lady from the deep South. We were discussing the attractions of saris. Mrs. X. said what a simple sort of dress it is. I disagreed, and asked her if she'd ever tried to put one on. With the most attractive leer in the world she leant towards me and replied : " No. Have you ever tried to take one off ? "

November 7th.

I have seen four patients with proptosis of the left eye since I came here : two adults with secondary prostatic carcinoma, a 13 year old boy with a malignant tumour, and a nine months old baby with proptosis, swelling of the eyelids and a small tumour-like mass to the left of the eye.

November 22nd. Montreal.

Child of three with bilateral temporal swelling, proptosis of left eye and perhaps a little of right, and two lovely black eyes. Bone marrow shows chloroma.

November 2nd. Philadelphia.

Always a pleasant and spacious city, even in the rain. Talked to McNair Scott about herpes simplex, and he showed me beautiful colour photographs of primary traumatic and vulval herpes. For skin biopsy they now put a biopsy punch in an electric drill and the skin is cut out in a fraction of a second, without anæsthesia and with no more pain than is produced by a needle prick, they say.

Remarkable lecture and case demonstration by Dr. Spitz on the treatment of hydrocephalus, no new principles but an eloquent testimony to the value of trying continually to improve technique. (Dr. Spitz has not published an account of his work, so details are not given here.)

Ward round in afternoon. The cubicle doors still have curtains of ultra-violet light to limit air-borne infections. Acute laryngo-tracheo-bronchitis seems to be a common and serious condition. Steam treatment has gone out, in favour of fine sprays of cold water, which are more effective and more comfortable. They may be given with oxygen in a " croupette," but if oxygen is not needed the child can be put in a cubicle with adjustable canvas curtains over the open parts. A bucket of water hangs on the wall, compressed air is rushed through it and out of a nozzle below the bucket.

The very close co-operation of bronchoscopist, radiologist, and pædiatrician here is impressive.

Went as a guest to the annual dinner of the John Morgan Society. John Morgan was a member of the first graduating class of the University of Pennsylvania in 1743. Later, between Leyden and Edinburgh, he was a student at St. Thomas's, and therefore I suppose at Guy's. He travelled to Belgium with Boswell, to Italy with the Duke of York. He founded America's first medical school in Philadelphia and was Washington's Director of Hospitals in the Revolutionary War. Almost all of his attempts to improve medical training failed, partly because he was so much ahead of his time and partly because he was not amiable, but his record is impressive.

November 9th. Durham, North Carolina.

Buffet supper in which you put on one plate (if you have no allergy) : hot bread, butter, North Carolina ham, crab meat, shrimps, tomato jelly, lettuce and a mixture of boiled rice and pineapple. My host had caught the shrimps and the crab at his " camp " on the coast, the wonderful ham was the reward for removing a ureteric calculus.

November 10th.

Although I prefer the Johns Hopkins campus to Duke's it is nevertheless fine. The buildings are in local stone and are frankly Gothic. The style is least successful, I think, in the hospital and most in the beautiful chapel. This, incidentally, is as big as a small cathedral, is interdenominational, and for at least one preacher (who is a Scot) is packed full, without even any standing room.

Football : Duke *v.* Wake Forest. The latter were at first the better, and the score was 19–0 at half time. Then suddenly Duke seemed like a new team (and for all I know may have been ; substitutes seem to have increased in number since I last watched a game in 1937 ; a completely new team is put in each time the ball changes sides, i.e., they have an offensive and a defensive team). The second half was keen, and ended 19–13.

We sat in the visitor's box in comfort, it was sunny and warm. The stadium is in a hollow surrounded by magnificent trees, in full fall foliage. The whole scene was as colourful as a mediaeval tourney must have been.

It was a striking example of American discipline. Football itself depends on complicated discipline of a high order. The marching bands, the drum majorettes strutting and whirling batons, the cheer leaders, the students occupying one complete section of seats and turning big coloured placards so that the block forms a picture of a Duke blue devil or a Wake Forest deacon (it is a Presbyterian college), the accomplished evolutions of the air cadets' drill—all discipline, all voluntary.

The students who were at Guy's this summer gave me dinner. I have never had a better steak in my life—nor a larger, it was too big to go on a plate and one ate off a dish like those one uses in England for the family's Sunday joint.

November 13th. Boston.

Streaming cold ; miserable train journey here from Baltimore, but how heavenly are the material comforts of an American hotel : a hot room, a hot bath, ice water, Cleanex.

November 14th.

Cold so bad I did not make the hospitals. Sat in my room and read Arabian Nights, Burton's translation, a selection, illustrated, 35 cents.

November 15th. Fort Ticonderoga.

Woke early, decided not to mope in Boston any more. Had coffee and doughnuts at the station, and caught " The Beeliner," a charming little diesel train of fluted stainless steel. Rolling country, over two watersheds and down to the Hudson at Albany. Turned north, beautiful journey, in " The Laurentian " along Lake Champlain. Fort Ticonderoga easy to pronounce as it's portmanteauxed to " Tye " ; probably have to be good friends before you could so that to Cholmondely. Stayed at " Ti Inn," opposite a pulp mill, and read the history of the place—Indian, French, English and American.

November 17th. Ottawa.

Football : Ottawa Roughriders *v.* Hamilton Tigers—final of the Big Four championship, whatever that is. Similar to, but not the same as, American football. Good rough game but no drum majorettes. Sat by Miss Elizabeth Arden who was distressed by the lack of fortune of the goal kickers, poor fellows always kicked too high so that the ball went over the cross bar ! Respect innocence, so did not enlighten her.

November 19th. Quebec.

The Château Frontenac is a fantastic hotel, and a tribute to the courage and foresight of the fathers of the modern Canada—the C.P.R. One of the wines was wrongly listed. I told the waiter who said, " Oh yes, and here's another. The Bar makes the list up, they don't know anything about wines." Gaspé smoked salmon delicious.

In one big room three gentlemen in plum velvet and powdered wigs, and a marquise in blue satin, were playing Mozart to a solitary man who sat in the most distant corner doing a crossword puzzle.

Quebec is a very beautiful city, especially when it is powdered with snow and is seen in clear air and a setting sun. I walked round the enormous outer rampart of the Citadel (" the Gibraltar of North America " as it used to be described) and over the Plains of Abraham. No complaint about generals staying at the base there : Wolfe must have been behind his own front line when he was hit for the third and fatal time, but only by a few yards. Montcalm was hit in the retreat, but only 300 yards or so from where Wolfe was wounded. They were wonderfully matched : Montcalm had shown his skill before (e.g., Abercombie's defeat at Ticenderoga) but was out-generalled by the younger man, and one volley changed the fate of the third largest country in the world.

November 23rd. Montreal.

Everywhere I have been on this trip the kindness and hospitality have been beyond belief. When I arrived in Montreal I found my room in the hotel booked by General Walford, and the Walfords took me to lunch at the St. James Club (the old fur traders' club), to dinner at the Montreal Club ; Dr. and Mrs. Goldbloom chose a charming French restaurant " Au 400 " (Montreal is 80% French). This morning, so that I should not suffer the fatigue of lifting my finger to get a taxi, Alton Goldbloom's car collected me at the hotel and deposited me in the Customs shed, ten yards from the gangway of the " Empress of Canada."

Mr. Tom Barker

AN APPRECIATION

TO estimate the worth of someone who has given thirty-eight years of his life to his profession as a hospital pharmacist is not an easy task. Yet the wealth of Mr. Barker's personal achievement was never more adequately demonstrated than by the contributions received for his parting present, and by the number of people who called to see him in the few days prior to his retirement.

He was well known and well liked by all who knew him and came into contact with him in the course of his duty. We in the Pharmaceutical Department, who knew him better than most, will remember him best of all for the characteristics which were peculiarly his : his hatred of being late for lunch ; his insistence on making himself clearly understood, and his extreme, almost exaggerated, politeness when asking anyone to do anything for him.

As a colleague and as a friend, he was a rare character, and we who knew him are in many ways sorry to see him go. Yet we are glad with him, and for him, that the time has come him to put down his measure for the last time, to leave off his white coat, and to let fall upon our shoulders the cloak that he left.

R.P.

Correspondence

Thanks

SIR,—May I beg the hospitality of your columns to thank all those past and present members of Guy's for their good wishes on my retirement.

Yours, etc.,

T. BARKER,

Deputy Chief Pharmacist.

Sport

RUGBY

Guy's *v.* Coventry

At Coventry. Result—Lost 3—12

2nd April, 1952

In this evening game at Coventry we were treated to the unusual spectacle of Guy's being more effective behind the scrum than the Midland club, but being completely unable to check their foot rushes.

After an even start Coventry opened the scoring when a defensive kick from the base of the scrum was charged down and a forward fell on the resulting loose ball, quickly increasing the lead with a long-range penalty goal. Guy's spent the rest of the half on the Coventry 25 but were unable to finish a number of promising movements and in the absence of Howells and Davies three comparatively simple kicks at goal were nobly attempted but missed by Burt.

In the second half Guy's continued to press and eventually scored when Smith sold a beautiful dummy to send Osborne over for a try. But Coventry soon gained another try when their forwards dribbled 75 yards to score. For the rest of the game Guy's continued to attack but their efforts remained unrewarded.

After the game Guy's cheered Harry Walker off the pitch as a small tribute to this great-hearted forward, who is retiring from first-class rugger this year.

Guy's *v.* Richmond

At H.O.P. Result—Won 11—10

5th April, 1952

Guy's started the game very shakily and it was only stout-hearted tackling by the back row that kept Richmond out in the first ten minutes. But gradually the Guy's forwards took control of the game, Meredith dominating the line-outs and Labuschagne monopolising the set-scrummages. Guy's, however, just could not score, Smith crossing the line only to be prevented from touching down, while stray passes to the opposition were frustrating the constructive rugger played by the side. Just before half time Richmond seized a loose ball to score underneath the posts and were rather lucky to change ends 5 points in the lead.

Guy's started the second half in an offensive spirit and soon Osborne broke through in the centre to send Cremin over for an unconverted try. Osborne repeated the performance a few minutes later to allow Burt to sidestep two Richmond defenders and score a try which he subsequently goaled. Guy's continued to press and Cremin, who had utterly subdued the Richmond fly-half by this time, intercepted a pass giving the centres an opportunity for some interpassing before sending James over for another try.

With the game in the bag Guy's relaxed, as is their wont these days, and defensive errors allowed Richmond to score again, leaving the figures to belie the true superiority Guy's exhibited on this occasion.

Before the game Mr. C. W. Pook was elected captain for next season.

UNITED HOSPITALS' SWIMMING CLUB

An Inter-Hospital Swimming Gala will be held on 11th June, 1952, at Seymour Hall Pool, Seymour Place, Marylebone, W.1 (near Marble Arch).

This is the first event of its kind since 1938 and it is hoped that keen support will be forthcoming in order to re-establish the Gala in its former position on the Inter-Hospital calendar.

The traditional programme of Swimming and Diving, including the Inter-Hospital Relay race, hundred yards races, nurses' races, etc., has been enlarged to include events for women students and physiotherapists. There will be a display by the Highgate Diving Club.

Since the last Gala, changes in the rules have made Water Polo a faster and more attractive game from the spectators' point of view. A match will be played between United Hospitals and Cambridge University.

Tickets (5*s.* and 2*s.* 6*d.*) may be obtained from the Club Secretaries of individual hospitals or from the United Hospitals' Swimming Club. (Hon. Treasurer : E. A. M. Tuck, St. Mary's Hospital Medical School, Paddington. Hon. Secretary : H. M. Thomas, London Hospital Medical College, Whitechapel.)

THE WEALD

Then, was the Timekeeper lost in his play
Forgotten his future and time.
It felt like the morning of some earlier day
By the immortal goddess thrown
To strengthen the stuff of the earthly clay
Before the farm cockerels could crow ;
And chorus the bird with the springtime lay
With sigh and shine of beech aglow.

To see the sunlight in the glade
On tree, on dappled brake anew,
And distant earth to purple fade,
Where fallow deer with fawns come into view—
With broad oaks march along the shaded ride—
Long rolling weald slung heaving to the blue.

J.C.D.

Hospital Information, etc.

GUY'S HOSPITAL
DENTAL DEPARTMENT

The Board of Governors of Guy's Hospital invite applications from registered Dental Practitioners for the following appointments to commence duties on **1st October, 1952 :**

Department of Conservative Dental Surgery

5 Registrars to attend for 6 sessions each per week.

5 Registrars to attend for 3 sessions each per week.

3 Registrars to attend for 2 sessions each per week.

1 Administrative Dental Officer to attend for 3 sessions per week.

1 Full-time Assistant to the Visiting Dental Surgeons.

Department of Preventive Dentistry

1 Registrar to attend for 5 sessions per week.

2 Registrars to attend for 3 sessions each per week.

Extractions and Minor Oral Surgery

1 Registrar to attend for 6 sessions per week.

Casualty Department

1 Registrar to attend for 5 sessions per week.
1 Registrar to attend for 6 sessions per week.

Department of Mechanics and Prosthetics

2 Registrars to attend for 6 sessions each per week.

2 Registrars to attend for 3 sessions each per week.

2 Registrars to attend for 2 sessions each per week.

Dental Department for Children

1 Registrar to attend for 6 sessions per week.

2 Registrars to attend for 3 sessions each per week.

3 Orthodontic Assistants for 3 sessions each per week.

Ante-Natal Clinic

1 Dental Officer to Salomons Centre for 1 session per week.

Dental Officers to the Nursing Staff

1 to attend for 6 sessions per week.

1 to attend for 3 sessions per week.

Clinical Pathology

1 Assistant Clinical Pathologist (Dental) to attend for 3 sessions per week.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1, to whom applications should be sent not later than **Saturday, 3rd May, 1952.**

GUY'S HOSPITAL DENTAL SCHOOL

Applications are invited from registered **Dental Practitioners** for the following **teaching appointments** to commence duties on 1st October, 1952 :

1. Full-time Head of the Department of Preventive Dentistry.
2. Full-time Assistant in the Dental Department for Children.
3. Junior Lecturer in Anatomy (Dental) part-time.
4. Demonstrator in Special Anatomy and Histology.

Forms of application are obtainable from the Dean, Medical School, Guy's Hospital, London, S.E.1, to whom applications should be sent not later than **Saturday, 3rd May, 1952.**

GUY'S HOSPITAL, S.E.1

Applications are invited for the post of **Dental Officer to the Nursing Staff** for attendance on 3 sessions per week. The appointment will commence as soon as possible and remuneration will be in accordance with the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service, with the grading of General Dental Practitioner.

Applications, together with the names of two referees, should be lodged with the Superintendent, Guy's Hospital, London Bridge, S.E.1, on or before **20th May, 1952.**

PASS LIST
CONJOINT BOARD

D.T.M.& H.

K. B. Kenyon Declan O'Keefe

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L. B. Blomfield Joseph Fulton

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CHANGE OF ADDRESS

A. G. C. Cox, M.D., M.R.C.P., 62, Queen Ann Street, W.1 (Consulting Room). Tel. : Welbeck 8626.

BIRTH

ATTENBOROUGH.—On April 2nd, 1952, at Bournemouth, to Patricia (née Baxter), wife of Philip Attenborough, L.D.S.—a daughter.

MARRIAGES

HOLMES—QUIDDINGTON. — On March 22nd, 1952, at the Congregational Church, Tunbridge Wells, Kent, Joseph M. Holmes, M.B., B.S., to Joan Quiddington, M.C.S.P.

DEATHS

TIPPER.—On 27th November, 1951, Ernest Harry Tipper, M.R.C.S., L.R.C.P., L.S.A., late W. African Medical Service.

WEAVER.—On 6th February, 1952, Lancelot Bargrave Weaver, L.D.S., R.C.S., 80, Park Street, Grosvenor Square, W.1.

EDS. { R.G. P.A.Z.

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GUY'S HOSPITAL GAZETTE

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PASSIM

TEN PLAIN WORDS

A GREAT wave of philanthropy swept over England in the first half of the eighteenth century. London has particular reason to be thankful for the remarkable period of 25 years following 1720. Until then two Royal Hospitals, that of St. Bartholomew and of St. Thomas, strove between them to supply the needs of a population rapidly increasing on each bank of the Thames. A quarter of a century later five more hospitals were ranged at their side. The Westminster Hospital was founded in 1720, Guy's in 1721, St. George's in 1733, the London Hospital in 1740, and the Middlesex Hospital in 1745.

The year to which the most significance should be attached might indeed be hotly disputed, and not least warmly within the walls of those notable institutions themselves, all of which flourish greatly today. Quot homines tot sententiæ. In this Hospital, however, we lay claim to a distinction as remarkable as it is unique. A glance at the list will provide the clue. Not one of the great Hospitals of the metropolis founded before or since this time, except Guy's, perpetuates the memory of its founder by carrying his name.

That this was a source of satisfaction not only to the Founder himself, but also to the Board of Governors, would seem evident, by implication, from ten plain words set at the base of the gracious statue by Peter Scheermakers which has stood in the forecourt of the Hospital from 1731 to this day. They lack the prolixity common to the period. They are striking in their simplicity.

" *Thomas Guy sole founder of this Hospital in his lifetime* "

By the exercise of a little diligence in threading one's way between closely parked cars, these words may easily be read during the busy hours of the day. They impress themselves deeply upon the mind. Their effect is redoubled when the forecourt is deserted, and the lights in the wards are dimmed. The emphasis, if it rests anywhere in so modest an inscription, lies in the word " sole ". It epitomises the debt we owe to one man. It expresses permanently what must, in those days, have been acknowledged as the justifiable pride of someone who has achieved his aim—in his lifetime. Guy, indeed, saw the original buildings completed and many of the staff of his Hospital appointed, though by a curious turn of fate, ten days separated his death in 1724 from the arrival of the first sixty patients in the wards. The Founder—and with him we must surely now call to mind our own generous benefactor, Lord Nuffield —is thus immediately distinguished from a large number of philanthropists whose estates begin to serve some great purpose only after their owners' death.

Thomas Guy was no physician like his contemporaries John Radcliffe and John Addenbrooke, whose memory has been kept bright for over 200 years by hospitals bearing their names at Oxford and Cambridge ; but he, too, can claim the physician's quality : " great liberality and dignity of sentiment, very prompt effusion of benevolence, and willingness to exert a lucrative art where there is no hope of lucre."

In this spirit, then, on May 5th let us celebrate Founder's Day at Guy's Hospital, the nucleus of which he would still recognise in 1952, and whose vast elaboration of good works through nearly two centuries and a half, would surely warm his heart.

At the end of April Mr. A. J. McNair retired from the Hospital Staff. He came on to the staff as Assistant Surgeon in 1925 and in 1930 was appointed Obstetric Surgeon.

An appreciation will be found opposite, and in publishing this the *Gazette* would like on behalf of all Guy's men to send Mr. McNair the most sincere good wishes for a long, happy, and active retirement.

It is with great regret that we have to record the retirement of Dr. R. Goulding from Editorship of the *Gazette*. Appointed on the retirement of Mr. H. A. Ripman in 1949, Dr. Goulding has held the position longer than any previous Editor. Perhaps only those most nearly concerned with the *Gazette* know the hard work and keen interest which he has contributed to it for so long. In consequence of the vacancy occurring on the editorial staff, Mr. E. E. D. Tomlin has been appointed Assistant Editor by the *Gazette* Committee's unanimous decision. Mr. Tomlin's career to date includes a rowing " Blue " and the teaching of classics at Winchester. At present he is Rowing Correspondent to the *Sunday Times* and earlier in his Hospital days he was Editor of *Pulse*. The *Gazette* is fortunate in securing his services.

H.A.R. writes :

It would show a sad lack of gratitude if the *Gazette* were to contain no acknowledgment of the work of Roy Goulding. By holding the post of Assistant Editor for ten months, and that of Editor for nearly two and a half years, he has occupied a chair in the editorial office longer than any predecessor—and that by a significant margin. But it would be wrong for his tenure to be noted only for that reason, for he should be remembered as the Editor who above all others since the war, has striven the hardest and succeeded most in regaining a pre-war standard of publication.

QUARTINA

A cold surprise did early April spring :
The blood stopped startled in its shrunken channels,
And fluids froze within the thin bone-covers,
And stifled fingers ached activity.

While underground is blind activity
Of roots and tubers, which the late snow covers ;
Eager to burst into a sudden Spring,
The shoots thrust strongly in their earthen channels.

As when bright dawn with streaming sunshafts channels
The night with light, and dreamers spring
To life, incarnate in activity,
Which now the flesh death-mask of slumber covers ;

Just as the slow flow of a river covers
A hidden tumult of activity :
The swirling waters of a hundred channels,
The ceaseless sparkle of the mountain spring.

So, though the cold earth covers it, the buried Spring
Rises in channels of divine activity.

P.R.M.

Mr. A. J. McNair

Mr. A. J. McNair is so much a part of many things at Guy's and is so close to the youth of our Hospital, that it seems difficult to believe that April, 1952, was the month when he ceased to be Obstetric Surgeon to Guy's. His students have ranged from men who finished learning their gynæcology and midwifery forty years ago, to those who started only last month, and among them there is no one who has not learnt from Mr. McNair a great deal more than the technical part of the specialities he excels in.

Those to whom midwifery has been a closed book since qualification, no less than those who have continued to study it—indeed all at Guy's—have come under his influence as a clinician, and have learnt from him the duty of a doctor to his patient : the duty to be always courteous and thoughtful in the smallest things, as well as to be meticulous and unremitting in the biggest. Kindliness is a natural gift in him, but to those of his students who had this gift in lesser measure, he taught that at least courtesy and thoughtfulness were within the reach of all and could be cultivated. His teaching was by precept and by his every action rather than by words. His economy of speech on various occasions has given rise to so many legends in the domestic history of the hospital that he ranks amongst those most quoted whenever old Guy's men meet together. As a poet in the *Gazette* once said, he is a man of little speech, " Nevertheless it came to pass a man said unto Mac, ' Hail ', and after communing within for a space, Mac answered, saying, ' Um ' : yet opened not he his mouth again for three score days."

Not all the stories are true in detail, but most of them emphasise that he is a man who does things rather than one who talks about doing them, and they all capture something of the wisdom, or the kindness, or the magnificent sense of humour that endears him to Guy's men and women.

Mr. McNair's keen interest in a great many of the undergraduate activities of Guy's has been of the greatest help and encouragement to the students. He has always liked to help in a quiet and unostentatious way, but his knowledge of what is going on and of the men concerned has often been quite uncanny. He has been particularly interested in the Rugby Football Club of which he has been for many years a vice-president, and in the Boxing Club. His interest in boxing dates from the days when he was a medical officer to The Ring at Blackfriars and he is usually to be seen at matches in which Guy's is participating. The Club can hardly have had a more devoted president than Mr. McNair, who holds this office at the present time.

Although there is no one at Guy's who has not been influenced by his teaching and example, there are two groups of people who have been specially privileged in their close association with Mr. McNair : those who have worked in the Obstetric Department, and those who have sought his professional help in their own family circle.

When he started at Guy's, midwifery practice was very different from what it is today. Routine ante-natal care was unknown, and Cæsarean Section was a dangerous and exciting operation only to be undertaken in exceptional circumstances. Difficult operations were undertaken under the most primitive conditions on the " District ", and Victoria Ward had only eight beds. It is McNair who has been responsible for introducing so many important changes at Guy's in the past forty years. He organised the first ante-natal clinics at Salomon's Centre, and by the confidence he inspired he overcame the inertia that the conservative multigravida of the Borough showed to such a new-fangled idea as ante-natal care. Within five years of his starting his work the Borough had accepted it as good—a tribute so high that no one could wish for more. Now, a generation later, we all take ante-natal care for granted. Let us not forget, therefore, that great part which McNair has played at Guy's in guiding developments, in selecting just those things that are fundamentally useful, and in rejecting the frills that are merely ostentatious. Not least important he has taught the value of the personal associations between the patient and her doctor, and her nurse or midwife—teaching that has retained for Guy's its reputation as a trusted hospital where patients are cared for, and where humanity has never taken second place to science.

In the days before regular ante-natal care, midwifery practice often presented critical and urgent situations that needed great manipulative skill, and in this field there must be very few who ever equalled McNair in dexterity, and none who could have matched him in the gentleness of his touch. Nowadays it is not often that the highest level of manipulative skill is necessary, and the opportunities to acquire it are few and far between, but there is a whole generation of men who learnt what they have of it from seeing the master-hand at work. McNair's consummate art in classical manipulation did not prevent him from introducing to Guy's the modern surgical approach to difficult obstetrics, for he was the first to perform a lower segment Cæsarean Section at Guy's twenty-seven years ago, and it was he who led the way to striking a balance between what was best to be retained from the old methods, and what was to be accepted with caution from the new.

His insight into the things that really matter, and his contempt for show-manship make him the wisest of gynæcologists. He has always held the view that a proper outlook in a specialist can be gained and preserved only by keeping constantly in touch with the commonplace as well as with the unusual. That is one reason why he has always placed so great an importance on out-patient teaching, and no one has ever given more care or taken more personal interest in the dressers attached to his firm. Outside the hospital he has enjoyed their company sometimes as host, sometimes as guest, at places as different as the Zoo and the "Anchor ", and, most recently of all at " The Hole in the Wall ", where his last firm entertained him and presented him with a token of their regard in the form of a tankard.

Probably the most devoted of Mr. McNair's friends is that very large body at Guy's who have sought his help for the care of their own families. No Guy's man or woman ever sought that help without a ready and a generous response, and he has carried on his own shoulders the anxieties and burdens of more people than can readily be believed. In this way there has grown up at the Hospital a vast group of people who think of him, and remember him first, as a trusted friend and doctor, one who has given more personal service and comfort of mind than they could ever have received from other hands. When, today, he looks round the Hospital Park and sees so many young Guy's men and women who met him for the first time at the moment they were born, he must feel that the best traditions of Guy's will be safeguarded in the future, not only by his teaching of medicine and of humanity, but by the vital people he has so very safely brought into the world.

Although Mr. McNair's appointment at Guy's has now changed in title, we know that his interests and activities will continue as before. His patients and colleagues will certainly not cease to call upon his time, and we can hope that without his routine hospital work he will find some time at least for the leisure that he has hitherto denied himself. No one can ever have worked harder and in a more disinterested way for the good of Guy's, to which he has always been devoted. He will be greatly missed from the active staff.

Plastic Surgery and General Surgery

By NILS L. ECKHOFF, M.S., F.R.C.S.

A Clinical Lecture delivered in the Medical School, Guy's Hospital, on 20th March, 1952.

LADIES AND GENTLEMEN,—It has been said that the function of a specialist is so to simplify and standardise the technique of his branch of surgery as to make it available for the general surgeon. You may not agree that this is the proper function of the specialist. Nor would you agree that the more specialised operations—cardiac operations, neurosurgical operations, operations on the inner ear, etc., etc.—are ever likely to pass into general usage. Nevertheless, each special branch of surgery has contributed a great deal to the general pool of surgical knowledge, for advances in one field are quick to be noticed and adopted, and pass imperceptibly into general use. I hope to be able to show you how plastic surgery has fulfilled its rôle in this respect.

For my own part I would say that the basic technique of plastic surgery is of fundamental importance in general surgical work. Most of us can remember the day when the worship of speed dominated surgical thought in many clinics. This was largely due to the limitations of anæsthesia at that time. Operating was done by the clock. (Some of you, when assisting, might wish that were the custom today.) Much thought was applied to reducing the number of steps in every operation, even to the number of movements made by the hands. Suturing was by continuous sutures, and often reduced to a dangerous minimum. Except in the hands of the very adept, operations were often roughly performed, and post-operative recovery often hampered by this fact.

Plastic surgery knows no time, or according to the wag there is Greenwich mean time, summer time, and plastic time. The clock does not dominate the scene. The only desideratum is that the operation should be performed with meticulous attention to detail. The basic principles are :—

Incisions carefully sited and carefully made.

Excision of all diseased and scarred tissue.

Adequate (sometimes extensive) undermining.

Gentle handling of tissues.

Punctilious hæmostasis.

Careful approximation and accurate suturing.

Incision

Incisions are placed as much as possible in the skin lines. Maps are available to show the general distribution of the skin lines, but the lines are not constant for all individuals, especially on the face. They can always be studied on the patient before the operation. In general terms, incisions running vertically (whether on the face, neck, abdomen or limbs), produce the worst scars. Much ingenuity may be required to avoid a bad scar line when extensive exposure is needed. Scarring is worst where maximum movement occurs, aptly called by Bunnell, " lines of push and pull ".

On a limb or digit the incision may be placed in the mid-lateral plane, crossing transversely to the opposite side, if required, and continuing up that side, or a zigzag effect may be obtained by transposing triangles (Z plasty). The edge of an area to be grafted may be deliberately cut in zigzag fashion, to overcome the pull of a straight incision.

Excision

In excising tissues that are diseased it is paramount that the excision should be complete. It is not so widely known that this is fundamental when operating

in scarred areas. In the excision of small scars, such as occurred in great numbers in air raid casualties, all fibrous tissue from the edges and from the depths must be removed, or a poor cosmetic result will obtain. In the excision of bigger scars, as from badly healed burns, all scar tissue must also be removed to provide a good base for any flap or graft that may be necessary. To place a graft in the middle of a scar is quite hopeless, for the contraction inherent in all grafts is then much more magnified.

Undermining

In a straightforward excision followed by suture undermining is essential. In small excisions the surgeon may be tempted to omit this step, but an inverted scar will then result. In bigger excisions quite extensive undermining may be required, with the help of which, and elementary knowledge of flap design, quite remarkable immediate repairs can be obtained, without any grafting.

Gentle Handling

In the course of such excisions and underminings, the most gentle handling of tissues is to be practised. The skin is rarely touched with forceps, but held aside with fine hooks. Large flaps are held gently in the gloved hand, or with a thin piece of gauze, the better to be able to gauge the depth of the dissection. Particular care is taken not to injure the main (recognised) vessels of the neighbourhood, or the subdermal plexus of blood vessels, upon which the survival of the skin more particularly depends.

Hæmostasis

Hæmostasis is secured by artery forceps made with a fine point, so that a minimal amount of tissue is taken up therein. Bleeding during operation can be reduced by the previous injection of adrenalin in saline, or by posture and hypotensive drugs. Many fine vessels will cease to bleed with forcipressure alone. Others may require ligature with fine catgut or fine linen thread. It is naturally undesirable to bury much foreign material under a graft, for each ligature represents a spot of strangled tissue over which there may be loss of the graft. For the same reason diathermy coagulation is not much used in cases requiring grafting. Oozing can be checked by pressure, maintained up to ten minutes with a gauze swab, with or without adrenalin.

Suturing

Suturing is achieved by the finest suture material on tiny needles. It may sometimes be necessary to bring together the subcutaneous tissue with fine catgut or fine thread. The skin is accurately approximated with multitudinous sutures about two millimetres apart, placed one or two millimetres from the cut edge, but always at right angles to the skin surface, so that accurate edge to edge apposition is obtained. If the operation is planned correctly and the undermining is adequate, there should be no tension on the sutures. These can accordingly be removed within four days on the face and neck, but are retained up to seven days on the limbs, and often ten on the abdomen. On the palm of the hand or sole of the foot it is well to keep them fourteen days, for the highly differentiated horny skin heals slowly.

Accurate suturing, with fine interrupted sutures, as first taught by the plastic surgeons, has been adopted quite widely by the general surgeons. Twenty-five years ago suturing, both inside and outside the abdomen, for instance, was very indifferently executed. The surgeon was much more interested in the speed with which the operation could be completed, than in its detailed perfection. Continuous running sutures were most commonly employed, and what one gained in speed, one lost in neatness. It is well nigh impossible to achieve edge to edge apposition with a running stitch. It is useful in intestinal work for the hæmostatic layer, but care must be taken not to allow it to produce a purse string effect. A continuous stitch is often also used for the seroserous layer, and is quick to insert. But a series of fine interrupted sutures are a good deal neater, and I feel that the growing tendency to use

interrupted sutures in intestinal work is not a little due to the influence of plastic surgical technique. Improved anæsthetic methods have meant that adequate time can be taken to secure neatness at all times.

Grafting

I have indicated that a defect can often be closed by undermining (to a greater or lesser degree) the adjacent skin and subcutaneous tissue. This is especially true in the head and neck. On the limbs, however, such a manœuvre is rarely really successful, for the elasticity of the skin is here minimal, and there is none to spare. Even if the skin edges can be brought together, the scar will probably stretch to quite a remarkable degree. It is therefore often better to insert a graft immediately. If skin only is excised the graft may be a razor graft or a whole thickness dissected graft, but if subcutaneous tissue has been removed, a flap of skin and subcutaneous tissue may be required. This may be a direct flap, as from the abdomen to the arm, or from one leg to another (crossleg flap), or an indirect flap, from the abdomen to the face using the arm as a vehicle. A tube pedicle transfer is but a variant of the latter.

Abdomen to arm flaps are of great usefulness after the excision of neoplasms, chronic inflammatory conditions, e.g., lupus, or in covering traumatic losses.

Crossleg flaps are often required as an adjunct to orthopædic or general surgical problems. For example a fracture of the tibia with skin loss, may require a flap as a preliminary to bone grafting or plating procedures. Indeed an immediate flap may be applied, in suitable cases, at the time of admission. In chronic osteomyelitis the overlying skin is often scarred and ulcerated. Success has been obtained by excavating the bone, and replacing the scarred skin with an immediate flap. In fact cancellous bone chips have often been added at the same time, with success in a high percentage of cases.

Cancellous chip bone grafts were first introduced by the plastic surgeons in the treatment of fractured jaws. In the first world war jaw bone grafts were done with pieces of rib or cortical bone from the tibia. In 1939 gaps were repaired by pieces of iliac crest of full thickness suitably modelled to fit the defect, and wired or sprung into position. During the last war Mowlem showed that the rate of healing could be reduced from several months to four or five weeks, by inserting a sliver of cortical iliac bone on the buccal side of the fragments, and filling the gap with cancellous bone chips. The use of such chips has extended to defects of the skull and facial bones, and Sheehan went so far as to grind the bone in a mincing machine, and inject it into the defect with a needle and syringe. From facial bones the use of cancellous chips has spread to limb bones, where they are found to be much more successful than cortical bone grafts.

Free grafts, crossleg flaps, and open jump flaps and tube pedicles have been used with some success in chronic leg ulcers. You will know that chronic leg ulcers are often surrounded by a mass of scar tissue extending down to the bone, and for some distance around the ulcer. When other factors thought to be responsible for the ulcer have been dealt with, whether by ligation of the superficial veins, ligation of the deep veins, or by sympathectomy, it is often thought wise to excise the ulcer and the mass of scar tissue, and replace this with a flap of healthy tissue. The early results have been promising, but I am unable to tell you as yet of the late results.

Crossleg flaps are also needed for certain foot problems. Traumatic losses of the heel or sole are best repaired by this means, though care must be taken to avoid undue pressure in walking, at least until the new nerve supply is reasonably established. Callosities, especially those that have been overtreated with caustics or radiation, may also have to be replaced in a similar manner, but it must be remembered that the callosity is usually an index of an underlying foot defect. If this is not corrected, the new flap will probably break down in the course of time.

Plastic surgery has an important contribution to make in the surgery of malignant disease. Most general surgeons have now learnt from the plastic surgeons to cut razor grafts with little difficulty. In carcinoma mammæ,

for example, the surgeon is no longer anxious about the closure of the defect. He will not be niggardly with the skin excision. He will not attempt to drag the flaps together under such tension as to risk death of the flaps. He will be perfectly happy to apply an immediate razor graft, as big as your hand, if necessary, to cover any defect.

In some textbooks diagrams of complicated flaps are shown, designed to cover the defect after radical mastectomy. I think these are rather dangerous, for after the extensive undermining peculiar to the operation, the flaps are in any case somewhat precarious. A simple free graft is much safer. Nor is there any justification for complex procedures designed to produce a mammary prominence after radical mastectomy, although this has been done successfully in cases of loss of breast from other causes. (I have recently seen a very satisfactory prosthesis made of latex rubber, for a bilateral amputee.)

In malignant disease of the face the plastic surgeon can make his greatest contribution. Gillies has always said that the general surgeon should excise the lesion, without any thought of the disfigurement produced, and the plastic surgeon should repair it. This is in the main a fair statement, always remembering that there are certain parts that defy the skill of the most brilliant. It is exceedingly difficult to reconstruct a presentable ear, or an eyelid, whereas a nose presents little difficulty.

But it is my thesis that the knowledge of a little plastic surgery should not make the excision less well done. Rather the reverse. The knowledge of the limitations and possibilities of repair may modify the excision, without of course making it less radical, in such a way as to simplify the repair problem, and possibly save the patient one or two operative stages, for such repairs are usually multiple stage procedures.

There remains the abiding problem of the correct moment to start reconstruction. Some would wait an empirical time of one or even two years. In the interim the deformity can often be masked by a well made prosthesis, sometimes so successful as to remove the need for surgery. But it is always difficult to know whether to start the repair work early, and take the risk of a recurrence under the repair.

A thin razor graft can often be applied in the first instance, so that early recurrence can be detected. But if the deformity is likely to be very disfiguring one may be forced to apply an immediate flap from the forehead or neck. This will often give quite a gratifying result.

Nor should we forget the contribution of plastic surgery to the burn problem. It is true that centres have been set up for the treatment of burns, but away from such centres, the burn case is still a general surgical problem. Variations have been made from time to time in the immediate treatment of the burnt area, the most interesting of which in modern times is the " exposure method ", which Wallace of Edinburgh has used extensively. Whatever the primary treatment, the ultimate aim is to graft all areas of full thickness loss at the earliest possible opportunity. This should be done within three weeks of the injury. In this way cases should no longer be seen lying about the hospitals for months with unhealed suppurating areas. The earlier primary healing is obtained the less the secondary deformity. But in bad cases the treatment of the secondary deformities may well keep the plastic surgeon busy for many months or even years. In burns of the hand considerable crippling is often caused by severe stiffening of the metacarpophalangeal and interphalangeal joints. Considerable contributions have been made towards this problem by the plastic surgeons.

The plastic surgical technique is also well adapted to other hand problems, the repair of cut tendons and of various hand deformities and contractures. Similarly great contributions have been made in the treatment of various congenital abnormalities—hypospadias, congenital absence of the vagina, imperforate anus, etc., not to mention the more common deformities of cleft lip and palate and bat ears.

Psychiatry Today—IV

THE WIDER IMPLICATIONS OF PSYCHIATRY

By DAVID STAFFORD-CLARK, M.D., M.R.C.P., D.P.M.

THE chapter from which this final extract is taken (Chapter XI, the last chapter but one in the book) is one dealing with the wider implications of psychiatry, in the fields of human society and its laws, of art and its appreciation, and of philosophy and religion.

It is important from the outset to realise that psychiatry cannot under any circumstances propound any final answers to the problems raised by a consideration of these three vast overlapping realms of thought, feeling, and behaviour. But it offers a technique which is always interesting and sometimes indispensable to a clear and balanced understanding of some of their principles, and it is in the value of the psychological approach as a technique that this chapter finds its justification.

That an awareness of unconscious as well as of conscious motives is fundamental to any sincere attempt to understand human behaviour, is a proposition which, at this stage in this book, has either been established finally or has failed to overcome the individual prejudices of those who reject it. As a psychiatrist I believe it to be true ; I hope I have made its presentation as convincing as possible, but if I have not, I shall not blame those readers who part company with me from now on. We are nearing, anyway, the final stages of this particular journey, and for my encounter with the law, however brief it may have to be, I need most of all the company of those who have preserved at least an open mind.

The common law of England, based as it is upon the foundations of ancient legal systems and particularly upon Roman law, has a long, complicated, and glorious history. It has never set aside the rights and duties of the individual ; nor has it ever abandoned as its central principle the ideal of justice and the concept that innocence must be presumed whereas guilt has to be proved. Whatever some lawyers may say of some psychiatrists, they are bound together by one indissoluble bond which has formed a principle of English law for nearly eight hundred years : that crime is always and essentially an affair of mind as well as of body, of intention as well as of action. This is embodied in the famous legal tag, " Actus non facit reum nisi mens sit rea." This observation must be almost as familiar to the public, at least in translation, as it is to the legal profession. It means that there cannot be a guilty act unless there is a guilty mind.

The determination of whether the mind of a person is in fact guilty in the legal sense, is one which clearly calls for some knowledge of mental processes in general. For example, to assume that because a man commits an illegal action with apparent deliberation, that therefore he has intended to do wrong, is to risk begging the entire question of the importance of his mental state. The true homicidal maniac is more or less a legal or dramatic fiction ; but we have seen that, for example in schizophrenia, it is perfectly possible for a person to make a violent and murderous attack on someone whom he has never seen before and against whom he can have no reasonable grudge or suspicion. It is equally possible for a patient whose mind is disturbed to steal, or commit forgery, or set fire to property ; all these are unquestionably wrongful and illegal acts, but their mere commission tells us nothing conclusive about the state of mind of the person who committed them and therefore about whether in fact that person is guilty of a crime or not.

It is in the interpretation of the mental state that the lawyer and the psychiatrist all too often part company. The lawyer is perfectly prepared to admit that someobdy who appears to him to be mad, is not responsible. He is not only reasonable in his attitude towards such people ; he is as generous

as English law invariably is to those whose guilt cannot reasonably be proved. But it is when the person accused of a crime appears on the surface to be perfectly sane that the evidence of the psychiatrist is apt to be not simply challenged, which is fair enough, but occasionally altogether discounted, ridiculed, and regarded as preposterous. Moreover, the psychiatrist himself is apt to come in for wholesale condemnation, to a point where it is possible for an exceedingly eminent judge to advise magistrates and probation officers to pay no attention to psychiatric evidence as a matter of general principle. Now psychiatrists occasionally make fools of themselves in court because they endeavour to argue about principles, when the whole structure of legal procedure obliges witnesses to confine themselves to facts. There can be no question that they are foolish to do this. The only people who can effectively change the substance or interpretation of the law by their actions during the course of an actual trial are Her Majesty's Judges themselves. They can establish precedents in this way, but every other citizen who wishes to see the law reformed in a particular aspect must do so by influencing public opinion and ultimately by getting the modifications which he proposes embodied in an Act of Parliament. Every time a psychiatrist tries to argue in court against the law as it stands he puts himself in the wrong from the beginning ; but if psychiatrists are sometimes ridiculous in courts of law, this is almost always precisely because they do allow their emotions and their indignation to influence their judgment and their opinions. In court they are nothing but expert witnesses ; fully entitled to a hearing, but to no more reverence or respect then the soundness of their evidence can command, and their status as citizens entitles them, in common with all the other witnesses who may be called. Outside the court, however, there are a number of pertinent observations which it is their duty to make.

The first of these is that the natural legal presumption that a man is not only innocent until he is proved guilty, but completely sane until he is proved to be in any way of unsound mind, should *not* be taken to mean that the presumption of sanity entitles lawyers or laymen to dismiss evidence which conflicts with their own common sense or observation. If the psychiatrist is only going to be believed when he says something which everybody else can see for themselves, his role as an expert witness is a sham and a mockery. We have seen in this book that human beings neither know completely the motives for all their own actions nor are in a position to interpret fully the motives for the actions of others. We tend to fill in the gaps in our knowledge about other people's feelings and motives by ascribing to them those explanations which occur most readily to us. Nearly always these explanations are projections of our own emotional tendencies, often those which we most rigorously repress and deny in ourselves. If somebody else maintains that our explanation is wrong and that the true motives which actuated the person are such as to relieve him of some of the guilt of his actions, our natural response is indignation. We do not want to see him " getting away with it ". A certain amount of psychiatric evidence about the state of mind of people who steal or who commit violent crime or display sexual perversions, conflicts with the immensely strong but largely subconscious human impulse to punish in others the tendencies which we deny or repress in ourselves. It is for this reason that such evidence all too frequently excites powerful feelings of criticism and hostility in those to whom it is presented.

It is often much easier for a court of law to accept the evidence of a technical expert in some field relatively unconnected with emotion, such as for example engineering, than it is to accept equally valid evidence about states of mind and feeling. Few judges and few juries would commit the gaffe of remarking, on seeing the photographs and drawings of a bridge which an engineering expert had just testified as unsoundly constructed, " There cannot be much wrong with it ; it looks strong enough to me ". But I have heard an experienced, and, I am sure, honest and fair-minded judge say of a prisoner about whose mental state careful and considered evidence had been given by a psychiatrist, " Well, anyway, he looks sane enough to me ".

The contention here is not that judges are fools or that the law is an ass. It is simply that the very real difficulty of accepting opinions which are occa-

sionally disagreeable or disturbing on an emotional basis, is one which must be acknowledged and faced if psychiatric evidence is to be fairly weighed in courts of law, and if psychiatric advice and opinions are to be properly integrated into the reform of legal procedures where this is necessary.

Two concrete examples, one familiar, the other perhaps less well known to the public, will suffice to conclude this section. The first relates to the present position of the law concerning the mental state of prisoners charged with murder. This is based on the views of Her Majesty's Judges formulated in response to a series of questions from the House of Lords in 1843, after the murder of Mr. Edward Drummond, the private secretary to Sir Robert Peel. Drummond was murdered by a man called McNaghten, who was suffering from delusions of persecution and who shot Drummond in mistake for Sir Robert Peel himself. The rules laid down by the judges, which are still binding although they are frequently liberally interpreted, are in essence as follows. In order to establish a defence on the grounds of insanity it must be clearly proved that at the time of committing the act the accused was labouring under such a defect of reason from disease of the mind as not to know the nature and quality of the act he was doing ; or if he did know what he was doing, that he did not know that it was wrong. The second important provision is that if the accused commits the act by reason of a delusion, the degree of responsibility which must be attached to him, and therefore in law the degree of culpability which must be attributed, is based upon the justification which the delusion would provide if it were true. This means that if a man suffering for example from schizophrenia, believes that another man is killing him by electric thought waves, and kills this other man in self-defence, he cannot be punished, although of course, and very properly, he will be detained in a suitable criminal mental hospital at Her Majesty's pleasure. If on the other hand the same patient's delusions were limited to the belief that his victim was depriving him of his reason and his sexual power by magical means, then since, even if this were true, it would not justify homicide in self-defence, it cannot be taken as a legitimate basis for a defence against the charge of murder, which is at present punishable by death. In fact, in cases of this kind the law makes very few mistakes. This is because the absurdity of evaluating delusions as if they were true and then deciding upon the degree of responsibility in which they involve the sufferer, is one which everybody now recognises.

In cases where obvious delusions can be proved and acknowledged the obsolete clauses of the McNaghten rules are set aside in practice, but where these rules continue to operate in a manner which, from the standpoint not simply of psychiatry but of humanity and justice itself, is palpably absurd, is in their effect upon the estimation of responsibility when the person accused is not suffering from an illness as bizarre and spectacular as schizophrenia, but from an affective disorder such as acute depression. Here it is comparatively uncommon for the honest expert witness to be able to maintain that the prisoner did not know that he was doing, or that he did not know that what he was doing was wrong. On the contrary, such a depressed patient will often maintain strenuously that he did know these things, that his guilt is overwhelming, and that he deserves to die. But because the balance of his mind is disturbed along emotional rather than along rational lines, all too often no psychiatric defence is legally possible in such cases.

In the summer of 1950 a man murdered his wife while she slept by smashing her skull with an axe. He then took his two children down to a South coast town where, after giving them a day on the beach and buying them ice creams, he gave them both some sleeping medicine and then smothered them. He next endeavoured to commit suicide by taking the rest of the sleeping medicine and attempting to drown himself. He failed to do so, and after wandering about in a distracted frame of mind for a further forty-eight hours was arrested by the police. From the evidence of the man's conduct, and the hopelessness with which he viewed his own and his family's future, and which had induced him to do what he did, there seemed reasonable grounds for regarding his mental state as a highly significant element in the assessment of his culpability. Yet under the McNaghten rules it would have been extremely difficult to offer

a valid defence in law ; in point of fact no such defence was offered and the man was hanged. Psychiatrists believe that a prima facie case can be made out for the revision of the McNaghten rules and their general provisions regarding insanity, in the light of the advances in our understanding of human mental and emotional processes in the 108 years since these rules were laid down.

The second example is in the sphere of treatment. The Criminal Justice Act of 1946 has made some notable advances in the provisions under which young criminals and first offenders can be handled. These provisions tend generally in the direction of placing less reliance upon imprisonment, and more upon probation and attendance at centres of corrective training, which do not deprive the individual of his liberty in the first instance. That they have become law is indeed a notable step forward. That they offend the emotions and prejudices of a number of honest and indignant people is unquestionable. Some of the reasons which permitted these advances have already received support from the results of psychiatric research. But the next and most essential step if this kind of legal reform is to continue, and a diminution both of the incidence of crime and the very serious overcrowding in all our prisons is to be achieved, is for the scope and facilities of psychiatric research, into the attitude and feelings of the young criminal before and after conviction, to be immensely widened and encouraged. Psychiatry does not postulate that *all* crime is a form of sickness ; nor can the findings of psychopathology explain away the problem of evil. But psychiatric techniques for studying individuals, based as they are upon that interest in the individual in all his aspects which is at the heart of psychological inquiry, have a great deal to offer in the approach to crime, its understanding and prevention as well as its treatment.

Concluded

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Reviews

Diseases of the Nose, Throat and Ear. By I. SIMSON HALL. Fifth Edition. Livingstone. *Price* 18*s*.

The author describes this book as a Handbook for Students and Practitioners, and he deals adequately with all the common conditions with which one should be familiar. At the beginning of each section a brief description is given of the anatomy of the region which is being discussed ; this is an admirable feature. The text is pleasing to read and is set out in a manner which will appeal to the majority.

The present edition does not differ greatly from the earlier ones, but the more recent changes in treatment have been introduced. The medical student will continue to find this a valuable textbook. P.L.P.

Introduction to Clinical Neurology. By GORDON HOLMES. Second Edition. *Price* 12*s*. 6*d*.

This book, which was first published in 1946, is based on the author's experience of teaching at Queen's Square. As one would expect, it is an exposition of the clinical approach to Neurology. Each system—motor, sensory, visual, etc.—is dealt with in turn. The relevant anatomy and physiology are discussed, and are then applied to the interpretation of symptoms and signs found in diseases of the nervous system. The methods of examining each system are presented, while in the Appendix there appears the well-known form of examination taught at Queen's Square. Diseases and syndromes are only mentioned to illustrate disordered function.

Like every book of this nature, it is an aid and not a substitute for clinical observations. The student starting his neurological appointment will find in these pages a fundamental approach to the subject, which will be of lasting value. It should also be read, or re-read, by every postgraduate student of Neurology. K.W.G.

Portrait of a Surgeon. By ERNEST A. GRAY. Robert Hale Ltd.

This book tells the story of the life of John Hunter against the backcloth of life in the XIIIth century and in relation to his less famous brother William and other surgical figures of the time. Those who practise medicine and surgery should acquaint themselves with the life of John Hunter. His shining example of industry, observation, and experiment laid the foundation upon which surgery has since advanced so far. The book is full of facts about Hunter's life and experiments ; his great moments and his disappointments ; his friends and implacable enemies.

His penetrating search for truth extended far beyond human anatomy and pathology to widespread investigations into comparative anatomy, physiology, biology, and geology. All of this work is recorded and it is almost beyond belief to recall that much of it was included in an annual series of 100 lectures which were given for a fee of four guineas or tenpence each. *Portrait of a Surgeon* can readily be recommended to all students of medicine at any age.

R.H.

Practical Biochemistry (for Students of Medicine). By F. D. WHITE and G. E. DELORY. 6th Edition (1952). 222 pp. Churchill. *Price* 17*s.* 6*d.*

This is the well-known " Cameron & White ", which originated in 1930. The new author, Dr. Delory, has had a long and varied experience of methods of analysis applied to blood and other biological material. The present edition contains particularly reliable methods for estimation of blood glucose, urea, phosphatase, inorganic phosphate, creatinine and other constituents, as well as directions for more complete investigations such as liver, kidney and pancreatic function tests. Although this is primarily a book for the student, it does in fact contain such a useful collection of details as to extend its scope to almost everyone interested in practical biochemistry in its relation to medicine. Unreservedly recommended. G.A.D.H.

Correspondence

Appreciation

SIR,—May I, through the *Gazette*, express my appreciation and thanks for the many good wishes and the generous gift presented to me on my retirement ?

Yours, etc.,

7, Talbot Houses,
Blackheath, S.E.3. FLORENCE TAYLOR.

Obstetric Memories

SIR,—Among the records of past days at Guy's which have appeared of late, I venture to think that justice has not been done to the remarkably successful figures of the Guy's Maternity Charity during the pre-aseptic days of the early nineties. Six externs were appointed every month, each one of whom expected to deliver at least 50 patients during the month, making a total of 300 and a yearly total of at least 3,500. Over them was the Junior " Charity," who in the next month would become the Senior and during his second month of office would present a written report of current events to the Treasurer each week. At the end of his second month the Senior " Charity " for the time being was sometimes able to state with pardonable satisfaction, that his month of office completed a run of twelve past months, without the loss of a single mother : no small feat when 3,500 patients had been successfully attended.

The extreme poverty of some mothers was appalling. I remember being called to one cheerful primapara in an absolutely empty room with only one object in it : a large brown sack full of straw or shavings, which was to serve her for a bed. Happily we had visiting nurses at Guy's, to whom we could refer such cases for assistance.

On another occasion while waiting for a rather tedious 2nd stage of labour to end, I asked the patient, during an interval between pains, to explain a lot of black marks on the wall, against which her bed rested. She told me her husband used to lie in bed on a Sunday morning and kill the bugs with a blunt stick, as they slowly crawled up the wall.

Our wonderfully good statistics were, I think, due primarily to the great care with which the externs prepared their hands. After a thorough scrubbing with nailbrush and soap and water, they soaked them for a minute or two in Hydrarg. Perchlor. lotion, 1 in 500, before lubricating them with vaseline of eucalyptus. We were very loyally supported by our obstetric staff, the senior being Dr. Galabin who, already in middle life, never objected to being fetched from Harley Street in a fast-trotting hansom cab to a difficult case in the Borough slums, often in the middle of the night. I remember one patient with a 2½-inch internal conjugate—the result of early rickets—who had, in her first confinement, been delivered by symphysiotomy. The symphysis had never re-united, and she walked about the ward with a wobbly, uncertain gait in consequence. To our disappointment, Galabin declined to do a Cæsarian and delivered her with Braxton Hicks' cephalotribe, after perforating the fœtal skull and washing out the brains. She made a perfect recovery. Braxton Hicks was, I think, Galabin's immediate predecessor, and he received a large "Fan mail" of letters from grateful practitioners, after the cephalotribe had been put on the market, and used to relate, with a merry twinkle, how one practitioner wrote joyfully to say that "both mother and child were doing extremely well." He had forgotten to empty the fœtal skull before compressing it. Students of birth injuries would do well to note this, but I confess we do not know the later history.

Yours, etc.,

M. ASTON KEY.

Bermondsey Children's Flats

SIR,—Your readers may have heard of the Bermondsey Children's Flats, which are a new and excellent variation of the Children's Club idea. The children's flats provide a place where children can go and do what they like in their own rooms without interfering with grown-ups' work or pleasure. At present the children's flats are in a big block near Guy's. (The person to write to, if anyone wants to send a donation or go to visit the flats, is Miss A. Lethbridge, The Warden, Bermondsey Children's Flats, 80, Bermondsey Street, S.E.1.)

I refer to these flats because I wish to ask your consideration of an idea. With the bombing and rehousing, the little terrace houses, which were so typical of Bermondsey and Southwark, are disappearing. I suggest that a row of six houses in Snowsfields should be preserved as they are of a little architectural and considerable sociological interest. I think these houses might be used for the Bermondsey Children's Flats. The fact that the rooms and the houses themselves are small, would be an advantage from the point of view of the children feeling at home.

I think that all of the houses are almost certainly scheduled for quick demolition. I wonder whether the R.I.B.A., the A.A. and the Society for the protection of Ancient Buildings, might be interested, and especially whether you can give your support.

Yours, etc.,

RONALD MACKEITH.

ACADEMIC

May		
		Exhibition. Surgical Department. "The Treatment of Peritonitis."
5th	1.00.	Mr. Cann. Clinical Lecture.
	12.30.	Founder's Day. Service in Chapel. Preacher, The Rev. Colin Cuttell.
	5.00.	Department of Surgery. Film Show. "The Treatment of Infections of the Hand." Anatomy Theatre.
6th	1.00.	Dr. Bishop. Clinical Lecture. "Hormones and Cancer."
7th	12.00.	Dr. David B. Scott (U.S. Public Health Service). "Electron Microscopy of Dental Tissues." Anatomy Theatre.
	5.00.	Professor G. A. D. Haslewood. "Problems in Steroid Metabolism—II." New Pathology Classroom.
8th	1.00.	Mr. Massie. Clinical Lecture. "A Case for Diagnosis."
	5.00.	Mr. Murray Falconer. Neurosurgical Demonstration. Clinical Theatre.
	5.00.	X-Ray Meeting. Gordon Museum.
9th	1.00.	Dr. Hardwick. Clinical Lecture. "Anæmia and its Treatment."
	2.15.	Department of Medicine. Combined Round. Preclinical Classroom.
10th	10.00.	Dr. Oliver Plowright. Departmental Round. Clinical Theatre.
	10.00.	Dr. Forman. Skin Demonstration. Preclinical Classroom.
12th	12.00.	Mr. K. E. Pringle. "The Basic Experiments in Orthodontics." Dental Theatre.
	1.00.	Mr. Lewis. Clinical Lecture. "Face and Brow Presentations."
14th	5.00.	Professor W. R. Spurrell. "The Assessment of Gastric Function in Man." New Pathology Classroom.
15th	1.00.	Mr. Willmore. Clinical Lecture. "Disorders of Speech and Language." Illustrated by Magnetic Tape Recordings.
	4.45.	Dr. A. Shore and Dr. W. L. Gent. Science Club. "The Electrophoretic Method for the Investigation of Protein Solutions and its Uses in Medicine." Staff Common Room. (Tea 4.30 p.m.)
	5.00.	X-Ray Meeting. Gordon Museum.
16th	1.00.	Dr. Campbell. Clinical Lecture. "On Writing Reports."
	2.15.	Department of Medicine. Combined Round. Preclinical classroom.
19th	1.00.	Dr. McArdle. Clinical Lecture.
	5.00.	Dr. Alfred Blalock. The Carbutt Memorial Lecture. "Cardiovascular Surgery." Physiology Theatre.
20th	1.00.	Mr. Kilpatrick. Clinical Lecture. "Carcinoma of the Prostate."

NOTICE

The 18th Annual Dinner of the Innominate Club, Chairman Mr. A. V. Clemmey, will be held at the Trocadero Restaurant, at 7.0 for 7.30 p.m., on Friday, 30th May, 1952. Dress optional. Tickets 25*s*. Will those who wish to attend please communicate with the Secretary, G. T. Hankey, Esq., 89, Harley Street, London, W.1. In the afternoon of 30th May, Innominate members will be welcomed to the Ward Rounds. Operations and Demonstrations will be given by the Senior Staff of Guy's Hospital. Will those who wish to attend please advise Mr. N. L. Eckhoff beforehand.

COMPETITION

At a recent meeting of the *Gazette* Committee it was decided to offer a prize of £25 for the best original line drawing, wood cut or etching suitable for use as a Guy's Christmas Card. The conditions of entry are as follows :—

1. Entries must be original and not have been previously submitted elsewhere.
2. The copyright becomes the property of the *Gazette*.
3. Entrants must be qualified members of the Staff, Students, Nurses or employees of Guy's Hospital at the time their entry is received.
4. Entries must be received by 31st July, 1952.
5. Members of the *Gazette* Committee are not eligible.
6. The prize may be divided or withheld at the Committee's discretion.

Sport

ASSOCIATION FOOTBALL

Guy's *v.* West Wickham

Away. Result—Lost 3—2

15th March, 1952

Guy's performance in this match was one which they will do well to forget. Guy's completely dominated the Wickham defence in the first half-hour ; in fact for a considerable period the full-backs were standing on the half-way line. The Guy's forward line just would not shoot, prefering to try and walk the ball into the net. This tactical error was soon noticed by Wickham and half-time brought no score.

The second half saw Guy's up against it. With the wind and the slope against them they were penned into their own half. Wickham opened the scoring, but Guy's forward line suddenly came to life and goals by Maggs and Cornhill put the Hospital ahead. The game now degenerated into a scrappy affair with a great deal of rough play which completely spoilt the game. Wickham soon equalised, and went ahead when the right full-back handled the ball in the penalty area, and the Wickham inside right gave Lewis no chance from the penalty spot.

Team : J. Lewis ; A. Fearn, J. F. Wylie ; T. Jones, D. Harris, J. Bowen ; P. Burns, C. Maggs, B. Cornhill, D. Oldfield, P. Shea.

Guy's *v.* Old Stationers

Away. Result—Lost 3—2

22nd March, 1952

Guy's travelled to Barnet with high hopes but had to forfeit 2 points due to poor finishing by the forward line. In the first half, the Old Stationers' forwards, especially their right winger, showed the Hospital defence a clean pair of heels, and it took Guy's some little time to settle down. The Stationers opened the scoring after a scrimmage in the Hospital goalmouth. Guy's soon equalised through their centre-forward who lobbed a high ball out of the opposing keeper's reach.

Guy's should have been ahead soon after when one of the forwards had the whole goal to himself, but put the ball behind. Just before half-time Oldfield gave the Hospital the lead with a dropping shot which took the Stationers' goalkeeper unawares.

The second half saw the Old Stationers continuously on the attack ; and they soon equalised through their right winger. Just before time Lewis failed to hold a hard drive which rebounded to their centre-forward who tapped the ball home to give his side the points. Guy's were unlucky ; the defence strove very hard, but the continuous pressure told in the second half.

Team : J. Lewis ; A Fearn, J. F. Wylie ; J. Bowen, T. Jones, D. Harris ; D. Oldfield, P. Shea, B. Cornhill, C. Maggs, P. Burns.

Guy's *v.* Ibis

At H.O.P. Result—Won 4—2

1st April, 1952

This was one of the most enjoyable games of the season, and the whole team showed spirit and played the kind of football which, if played earlier in the season, would have won them many games.

From the kick-off the Ibis defence were under heavy pressure, with the Hospital inside left prominent in all attacks ; and it was no surprise when Guy's scored after five minutes' play. Ibis fought back but found themselves up against a defence that was not giving anything away. At the interval Guy's were leading by two goals to one ; a well-deserved lead which was further increased in the second half by the Hospital centre-forward, who cracked in a shot from the left wing which left the Ibis keeper helpless. Ibis scored a consolation goal when Lewis mishandled the wet ball which skidded over the line ; but Guy's immediately added another goal through Cornhill, to set the seal on the match. Well done, Guy's !

Team : J. Lewis ; A. Fearn, J. F. Wylie ; A. Castle, T. Jones, P. Southgate ; P. Burns, N. McGibbon, C. Gipp, B. Cornhill, A. Jones.

Guy's *v.* Alleyn Old Boys

At H.O.P. Result—Drew 1—1

5th April, 1952

Guy's gained a point after a keen but enjoyable struggle at Honor Oak. Though the Hospital side lacked the confident air of the previous Tuesday, they soon had the Old Boys defence in trouble, and were unlucky not to take the lead early in the game.

Alleyns were the first to score through their centre forward who received a good ball from his left winger. Guy's then pressed to the attack and shortly before the interval Harris headed home an excellent goal.

The second half saw a keen struggle for possession in mid-field ; the Alleyn's were unlucky to have their captain injured, but they played hard to take the lead ; and the Guy's goalkeeper had plenty to do; but he had an excellent game and inspired confidence throughout the defence. This was a game which could have been won if the ball had run a little more kindly for Guy's, but it was not to be. The team as a whole continued to show improvement, apparent in the results of recent matches.

Team : A. Mitchener ; A. Fearn, D. Allen : J. F. Wylie, A. Jones, D. Harris ; B. Cornhill, D. Matthews, D. Oldfield, P. Harris, P. Burns.

HOSPITAL CUP FINAL

Guy's *v.* St. Mary's

At Barnet. Result—Lost 3—1

12th March, 1952

This was probably the best chance Guy's have had in recent years to win the Hospital Cup, and their failure to do so was due to the ineffective shooting of their forwards in the first half when they had the advantage of the slope of the Barnet ground. St. Mary's, who missed their star player Dennis Kelleher, began the game with a series of strong attacks, but though Sullivan at centre-forward was always dangerous, the Guy's defence were a match for the St. Mary's forwards. St. Mary's opened the scoring with a very lucky goal ; a loose ball kicked upfield from just inside the half-way line was misjudged by the Guy's keeper and the ball dropped over his hands into the net. Guy's immediately replied through Matthews, and consequently came more into the game ; but their finishing in front of goal was lamentable. They should have been two goals ahead at this period of the game.

Just on half-time, St. Mary's scored their second goal almost directly from the right corner flag, which struck the far post and bounced in.

In the second half Guy's defence played a grand game, but the Guy's forward line was completely dominated by the St. Mary's half-backs. Sullivan made the initial moves for Norman to score the third goal. The final whistle blew with St. Mary's worthy winners. Lewis, the Guy's goalkeeper, played an outstanding game in the second half, making many fine saves from Sullivan.

Team : J. Lewis ; A. Fearn (Capt.), J. F. Wylie ; D. Allen, D. Lipington, D. Harris; P. Burns, D. Matthews, C. Maggs, B. Cornhill, D. Oldfield.

CHESS

Guy's *v.* London School of Economics "A"
11th February, 1952. Result—Won 3½—2½

Guy's *v.* Staff
27th March, 1952. Result—Won 4½—1½

Guy's *v.* St. Mary's Hospital
22nd April, 1952. Result—Won 3½—2½

Hospital Information, etc.

FOUNDER'S DAY, 1952

Founder's Day will be observed on
Monday, May 5th
Service in the Chapel at 12.30 p.m.

Preacher :
The Rev. COLIN CUTTELL, B.A.
Industrial Missioner
Diocese of Southwark

THE CARBUTT MEMORIAL LECTURE

The Carbutt Memorial Lecture, "**Cardio-vascular Surgery**", will be delivered in the Physiology Theatre on Monday, 19th May, 1952, at 5 p.m., by Dr. Alfred Blalock, M.D., F.A.C.S., F.R.C.S., Professor of Surgery, The Johns Hopkins Hospital, Baltimore, and Associate Surgeon, Guy's Hospital. The Chair will be taken by Mr. R. C. Brock, M.S., F.R.C.S.

Tickets are available from the Dean, Guy's Hospital Medical School, S.E.1. Application for a ticket will ensure a seat, but is not necessary for admission.

UNIVERSITY OF LONDON PASS LIST

Special Second Examination for Medical Degrees
March, 1952

H. B. Anstall
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M. J. Atwill
G. C. W. Baker
Joan W. Baker
Margaret A. Barrie
J. F. S. Batson
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D. Bradshaw
J. D. Broome
Margaret E. Broughton
Elizabeth A. Burns
C. M. G. Buttery
Gillian M. Cann
J. A. Cox
J. B. St. C. Cumberbatch
H. T. Davies
J. G. Davies
M. H. Evans
R. F. Everton
L. W. S. Eyears
Verna P. Firth
J. A. Greeves
P. D. Griffiths
J. G. J. Howell
R. K. Knight
I. S. MacDougall
A. J. Membrey
J. S. B. Meyer
J. D. Miller
J. C. Moorshead
I. J. M. Y. Nalletamby
R. Palmer
J. G. Parkes
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Jane Platnauer
Iris C. Platt
Mary R. Remington
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R. D. Sandfield
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CONJOINT BOARD

L.R.C.P., M.R.C.S.
April, 1952

Pathology

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Surgery

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*E. W. G. Birch
*R. W. Brotherwood
*J. Dennis
*H. P. Duke
*P. S. Elias
H. W. S. Francis
A. G. E. Fung-a-Fat
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*E. G. Haydon
W. D. Hayley
*T. G. R. Jones
J. A. McHardy
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*W. A. Matheson
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Midwifery

S. S. Barker
*L. L. Emery
A. I. Fram
D. J. Green
J. M. S. Grieve
*W. A. Matheson
G. Screech
*A. J. Smith
E. C. Spencer
A. H. Vaughan

* Have completed the examination.

ROYAL COLLEGE OF PHYSICIANS OF LONDON

M.R.C.P.
April, 1952

K. M. Citron L. Haas P. Haden

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS

Diploma

H. M. Baird A. W. Cook W. H. Watson

PHYSICAL SOCIETY ESSAY PRIZE

The following subject has been chosen for the Physical Society's Beddard and Laidlaw Prize Essay in 1952 :—

" The Natural History of Mitral Stenosis and its Treatment."

Essays should be from 5,000–10,000 words in length and should be handed in to the Secretaries before 1st October, 1952.

R. E. IRVINE,
P. G. LARGE,
Hon. Secretaries.

STUDENTS' HEALTH SERVICE

Mass Miniature X-Ray

The Ministry of Health mass miniature radiographic unit will be at Guy's on 19th May, 1952, and subsequent days for the routine examination of students in the Medical and Dental Schools.

Before this date, notices will be posted in the Medical School, Dental School, Colonnade and College, giving the times of appointments. Owing to the large number of students concerned, it is regretted that the times of individual appointments cannot be changed, and it is hoped that all students will make every endeavour to attend promptly at the time asked so that examination may proceed rapidly and efficiently.

Should a student find that his name does not appear on the lists, he should communicate at once with the Secretary to the Students' Health Service (Telephone Hop 3500, Ext. 389).

PAPERS BY GUY'S MEN

Anderson, I. G., Haslewood, G. A. D. and others. Preparation of Chenodeoxycholic Acid from Cholic Acid. *Nature*, 1952, **169,** 621.

Attwater, H. L. Retention of Urine. *Med. Pr.*, 1952, **227,** 314.

Bishop, P. M. F., and another. Diabetes Caused by ACTH Treatment of Rheumatoid Arthritis. *Proc. R. Soc. Med.*, 1952, **45,** 168.

Blacker, C. P. Eugenic Experiments Conducted by the Nazis on Human Subjects. *Eugen. Rev.*, 1952, **44,** 9.

Brock, R. C. La Valvulotomie Pulmonaire (présentation de film). *Acta. Med. belg.*, 1951, **7,** 417.

Brock, R. C. La Chirurgie du Coeur. *Rev. méd. Louvain*, 1951, 23.

Clarkson, Patrick. Emergency Surgery in the Early Treatment of Burns and Scalds. *Practitioner*, 1952, **168,** 400.

Cook, C. A. G. Cortisone in the Treatment of Iritis. *Brit. Encycl. Med. Pract., Int. Suppl. No.* 115, April, 1952.

Deuchar, D. C., and Knebel, R. The Pulmonary and Systemic Circulations in Congenital Heart Disease. *Brit. Heart J.*, 1952, **14,** 225.

Ellis, R. W. B. Pædiatric Emergencies. *Practitioner*, 1952, **168,** 338.

Evans, Gwilym M. Vaginal Metastases from Carcinoma of the Ovary. *J. Obstet. Gyncæ. Brit. Emp.*, 1952, **59,** 82.

Falconer, M. A., and another. Carotico-Cavernous Fistula Causing Pulsating Exophthalmos with Cerebral Blood-Flow Maintained Through External Carotid Artery. *Proc. R. Soc. Med.*, 1952, **45,** 225.

Hartfall, S. J., and another. Cortisone and ACTH in Exophthalmic Ophthalmoplegia. *Lancet*, 1952, i, 847.

Höhn, E. O., Robson, J. M., and another. Quantitative Experiments on the Mode of Oestrogen—Progesterone Antagonism in the Rabbit Endometrium. *J. Physiol.*, 1952, **116,** 245.

Leader, S. A., and another. Differential Expansion of Acrylics, Plaster and Strengtheners, Resulting in Misfit and Distortion of New Dentures and Repairs. *Brit. dent. J.*, 1952, **92,** 179.

MacDonald, I. Growth of Biparietal Diameter of Fœtal Head in the Last Weeks of Pregnancy. *Brit. med. J.*, 1952, i, 798.

Maizels, Montague. Intercellular Plasma of Centrifuged Human Erythrocytes. *Proc. Physiol. Soc., J. Physiol.*, 1952, **116,** 38P.

Matthews, E. The Partial Denture Problem. *Brit. dent. J.*, 1952, **92,** 173.

Oliver, Leslie C. A Pituitary Tuberculoma. *Lancet*, 1952, i, 698.

Poulton, E. M. Ectodermal Dysplasia with Congenital Absence of the Breasts. *Proc. R. Soc. Med.*, 1952, **45,** 222.

Ripman, Hujohn. Hypoplasia and Aplasia of the Vagina Treated with Œstrogenic Hormone Implants. *Lancet*, 1952, i, 744.

Sears, W. Gordon. The Medical Indication for Alcohol. *Practitioner*, 1952, **168,** 427.

Stevenson, F. Harwood. Management of Respiratory Infections in Patients Severely Paralysed by Poliomyelitis. *Lancet*, 1952, i, 845.

Treble, H. A. Scleroderma with Calcinosis. *Proc. R. Soc. Med.*, 1952, **45,** 173.

Trounce, J. R. The Electrocardiogram in Mitral Stenosis. *Brit. Heart J.*, 1952, **14,** 185.

Trounce, D. Q., and another. Congenital Partial Heart Block. *Brit. Heart. J.*, 1952, **14,** 291.

Wass, S. H. Simple Tumours and Hyperostoses of the Upper Jaw. *J. Laryng.*, 1952, **66,** 165.

BIRTHS

BEATON.—On 1st April, 1952, in Nuffield House, to Barbara, wife of S. G. Beaton, B.D.S.—a daughter (Gillian Elizabeth), a sister for Lesley and Andrew.

KNOWLES.—On 12th April, 1952, to Hazel (née Bruce), wife of J. G. L. Knowles, L.D.S.—a son (Nigel) and daughter (Lorna).

LLEWELLYN.—On 15th April, 1952, at Falkirk Royal Infirmary, to Dr. Anne McLachlan (née Haddow), wife of Dr. Oliver Llewellyn, M.C.—a daughter.

NELSON.—On 14th April, 1952, to Jean (née Mortemore), wife of Ian Nelson, L.D.S.—a daughter (Julia Jane).

TRIST.—On 17th April, 1952, at Nuffield House, Guy's Hospital, to Patricia (née Lloyd-Chandos), wife of Arthur E. Trist, L.D.S.—a son.

WILLIAMS.—On 12th April, 1952, to May (née Finlay), wife of Dr. J. R. D. Williams, M.B., B.S., of 157, Henley Road, Ipswich—a son.

MARRIAGES

DEARDEN — RICHARDSON. — On 19th April, 1952, at Dewsbury Moor Parish Church, Norman Peter Dearden to Joan Kingston Richardson, S.R.N.

GREENBERG—GORDON.—On 6th April, 1952, at St. John's Wood Synagogue, Robert Cecil Greenberg, M.B., B.S., to Leila Gordon.

IRVING—SWINDELLS.—On 9th February, 1952, at St. Mary's Parish Church, Kington, Herefordshire, Tom Abbott Irving, G.I.Mch.E., to Dorothy M. Swindells, S.R.N.

Eds. { P.A.Z. / E.E.D.T.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1665 17*th May* 1952 *One Shilling*

PASSIM

THE general wards of a hospital provide many contrasts. Above all there is a wide variation from bed to bed in the severity of the patients' condition. On the one hand we see the desperate emergency. On the other, the patient who, admitted " for observation ", finds that his initial symptoms do not develop, and as unconscious relief at his good fortune becomes more and more a feature of his life in the ward, he turns, as we have sometimes noted, into a wag. What a delight he may be ! Mark you, he has been told nothing. His doctors may well be puzzled and not yet satisfied that he is fit for discharge. They do not know what to say, and rightly (we think) avoid expressions either of satisfaction or foreboding. But freed from that anxiety which the initial removal to hospital inevitably arouses even in the most serene, he seems to regard each day as it passes as some sort of hurdle to be cleared : each test as an obstacle to be negotiated : each visit from his doctors as an examination (in a true or figurative sense) to be passed. Success goes to his head. Ignorance, to such a man, is bliss, and he may return home in high spirits, proud to have defeated the medical or surgical panoply of techniques —and how much our state of health alters our attitude to these investigations— pleased as Punch to have cocked a snook at Fate.

We have, perhaps, over-emphasised the sort of case which is, unhappily, all too infrequent in hospital practice, and in doing so we would not wish to gloss over the other and more sombre side of the picture. Indeed, to have so underlined the bliss of ignorance might lay us open to an accusation that (to misquote the great 18th century poet) we consider it folly to be otherwise. We believe nothing of the kind. That we have revived a discussion of this difficult subject at all is a measure of the disquiet caused by a report in the press, not many days ago, of criticisms made by Professor R. M. Titmuss, Professor of Social Administration at London University, of the " Barrier of Silence " which he says exists between a patient and the hospital professional staff. Speaking at the conference of the Institute of Hospital Administrators he described the case of a woman who complained, in effect, that she did not know what was going on : that she was examined in complete silence : that she had no direct contact with her doctor, and that it was the Ward Sister, and not herself, who told him how she felt. " Why," the Professor is stated to have asked, " is it not understood that courtesy has a therapeutic value ? "

Now comment such as this, from a distinguished man, must be taken seriously. That we have not found evidence in our own hospital to support these charges should not stimulate smug satisfaction. Doubtless they can be substantiated in greater or less degree. There must be no Nelson touch, or blind eye which " cannot see the signal." On the contrary we should do well to consider this public criticism as a timely warning that the happy personal relationship between doctor and patient is always in need of cultivation, and ever in danger of neglect. In this connection the subject chosen by the British Medical Association a few months ago for a prize essay open to medical students should not pass without comment. It was " The training of a student in the personal relationship between doctor and patient."

Even at the time there seemed a suggestion in such a title that all was not well in this vital relationship. But Professor Titmuss is unequivocal. To him a doctor's silence is " a device employed to maintain authority." In saying this we believe he has over-stated a good case. Nevertheless his words should not pass unheeded.

Thomas Guy

The Founder's Day Address delivered in the Guy's Hospital Chapel on 5th May, 1952, by

REV. COLIN CUTTELL, B.A.

FOUNDER'S DAY should be more than the observance of "an ancient and pious custom." It is a timely reminder of our indebtedness to the past but it is also a signpost for the future. Primitive as were (by our standards) the beginnings of Guy's, the foundation principles remain unchanged. The greater the advance in technical and scientific skill, the greater the need for fresh infusions of the informing spirit. I am, of course, the merest novice in these matters but it does seem to me that in the forgetting *why* we heal, we may conceivably forfeit some measure of healing skill. For are we not all agreed here this morning that in the work of healing we are not handling simply an intricate piece of mechanism to be repaired as one repairs an elaborate automatic telephone exchange ? We are face to face with the vast imponderables of man's inmost being. Restoration to wholeness involves every part of him. Plato's longing : ἕνα γένεσθαι ἐκ πολλῶν might fittingly be chosen as not the watchword of psychosomatic medicine only, but the keystone of all healing work.

What of the man who's body rests in the vault beneath us ? It has been the fashion of biographers and encyclopædists to belittle Thomas Guy. Chambers, for example, describes him as "of mean appearance, with a melancholy countenance and regarded as an intensely selfish and avaricious man." What are the facts ? The phrase of popular American usage "local boy makes good" may be applied to the founder of Guy's. Born in nearby Horselydown, he played in our Southwark streets until his 8th year and was then whisked off to Tamworth by a widowed mother. An apprenticeship at a Cheapside bookseller's was not wasted on this shrewd pupil. When still a young man he had, by any reckoning, done pretty well out of his original £200 stock of books and bibles and while still in his 20's was established at his own shop hard by the Mansion House. It was an age of gamblers. On the side, Thomas Guy indulged a gambler's instinct and was lucky. It would be charitable to leave the matter there. Able and successful men are not infrequently the target of that green-eyed monster, jealousy. Whether Thomas Guy was as miserly as his enemies were wont to infer is an open question. His advocates point to the plain fact that his benefactions, far from being part of an eleventh hour insurance policy, were examples of a liberality that marked the whole course of his successful business career. Poor scholars, apprentices, widows, debtors and indigent relations bore witness to his philanthropy.

In 1704 Thomas Guy became a governor of St. Thomas's Hospital where he had built and endowed three wards. Sixteen years later he brought to fruition the slowly maturing idea of a hospital across the way for incurables. That new hospital, destined to bear his name, was actually complete though not occupied before he died on 27th December, 1724. His last will and testament, with its further generous provision for the maintenance of the hospital, suggests that Thomas Guy was clear-headed and far-sighted to the end. Some contended that the clause providing for the admission of 20 lunatics (as they were called) was an unfortunate aberration. Or did he foresee the time when clinical skills would be brought to bear upon the disorders of the mind as naturally as in the treatment of organic disease ?

Looking over the records and charts of those days, it is easy for us to ridicule the primitive standards of hygiene and surgery, when a bug-catcher at

£40 p.a. was reckoned to be a necessary part of the institution and surgery was quite innocent of the most elementary antiseptic precautions. Indeed, the great modern hospital of Guy's is as much like its prototype as the Mayflower resembles the Queen Mary. But Thomas Guy had a well-defined objective. Healing had a divine imperative. It was a spiritual work and the chaplain was one of the principal officers of the foundation. Is there not a danger, everywhere apparent in our planned technically-conditioned world, with its increasing trends of specialisation in every field of human achievement, that we lose sight of the *terminus ad quem ?* Autopsy has yet to reveal the spirit of man. Yet the evidence on every hand suggests that man's greatest need is for integration and wholeness of spirit and the greatest threat of our age, the threat to personality. Everywhere, medical practitioners and clergy alike are perturbed at the mounting incidence of emotional unbalance in all its manifestations. They are increasingly desirous of understanding the forces contributing to that unbalance. The B.M.A. is prepared to admit that there are underlying spiritual factors, and there is a significant movement afoot, backed by many reputable names in the medical register, to reach a common mind with the Church in a new approach to healing.

Both doctor and priest are exposed to the dangers of a mind in blinkers. Both tend to be popularly disregarded when life pursues the even tenor of its way. Both tend to be summoned *in extremis*, or as a kind of last chance. The priest is sadly aware of the reaction of the immediate relations of a sick person when one of them suggests calling the vicar : " *Oh ! he's not as bad as all that !* " And the medical man may at times feel glum that no one (spontaneously, at any rate) thinks of him in relation to a garden party, a banquet or a show except in regard to the possible after effects. In this connection, I recollect a jingle, probably not unknown to Thomas Guy :

When one's all right, he's prone to spite
The doctor's peaceful mission ;
But when he's sick, it's loud and quick
He bawls for a physician.

But joking apart, the priest himself, though he may often ignore it, has a healing commission. A sick mind may produce a sick body, a sick body a sick mind—but the *sick soul* may have positive results in both a sick mind *and* a sick body. The B.M.A., quoted by Dr. Leslie Weatherhead, appears to endorse this view when it affirms that " no tissue of the body is wholly removed from the influence of spirit."

I am conscious of stepping in where angels fear to tread, and such matters are properly the subject for the expert. But the merest layman who happens to be tremendously interested in people and in human behaviour may perhaps be forgiven for thinking aloud on this occasion. Our common study is man. If he is little more than a highly complicated piece of machinery directed and controlled by an elaborate " wiring job " we call the nervous system, then there is no discussion. But the experienced general practitioner and the skilled nurse who, like the priest, have had to face the imponderables of man's nature, know better. There is far more here on this hopsital bed than an intricate mechanism to be kept in repair, and this lovely chapel is the visible symbol of a partnership at a deeper level.

For that reason it behoves us to remember the rock whence we are hewn and the hole of the pit whence we are dug. Thomas Guy laid the foundation better than he knew, and his share of human frailty is swallowed up in the prophetic magnitude of his achievement. We may give sincere thanks for the one to whom, under God, we owe this great foundation and a name renowned the world over.

Musings of an Octogenarian

By A. W. ORMOND, C.B.E., F.R.C.S.
Consulting Ophthalmic Surgeon Emeritus to Guy's Hospital

THE last decade of the Nineteenth Century completed the exodus of the senior and consultant members of the profession, from the City to the West End. Guy's, the London, Moorfields, St. Thomas's, etc., had been staffed mainly by men living near these hospitals and within the Metropolitan area ; but when I joined Guy's in 1891 the process was almost complete and the Medical Mecca of the Metropolis established north of Oxford Circus.

The profession seems about that time to have blossomed into something " rich and rare " and left the rather sordid atmosphere of Benj. Allen and Bob Sawyer behind it. The Universities were providing students whose preliminary education had been widened by an acquaintance with the Arts and Classics, giving a greater width of cultural background than was general before.

In 1891, the 1st of October was then, as now, the opening date of the Winter Session and it was a cold sharp morning when I, on my first day at Guy's, stood outside the Medical School Office, situated at that time in Hunt's House near the Dispensary.

The Medical School was growing, and the yearly entrance list of students numbered then about 100 all told and the numbers increased during that decade. I was once asked why I chose Guy's as my Alma-Mater ; I had no previous connection with the hospital or in fact with the profession at all, but my home was in the North of London and a relative had gained an Arts scholarship at the Hospital a year or two before and was staying with us at that time. Walking or going by train to Broad Street Station, I was joined by a few other men, who also lived on the North side of the river. F. Still afterwards Sir Frederick Still was one of the number, I remember. The walk from Broad Street Station against the serried mass of City men coming North over London Bridge, was exhilarating, if somewhat exhausting. " Time was the essence of the Contract " as the lawyers say and 9.0 a.m. must always see us safely inside the doors of the Anatomical Theatre before Morley the Janitor, a mild but unrelenting man of impeccable honesty, had closed them ; as otherwise the Dean Dr. Lauriston Shaw refused to sign us up for a sufficient number of attendances at lectures to satisfy " the Colleges."

Clement Lucas and Jacobson were lecturers I remember particularly. Lucas was good but ordinary, whereas Jacobson took quite a long time, before the lecture began, to fill several black-boards with anatomical facts and also some interesting Comparative Anatomy. There was always a distinction about Jacobson's teaching. I was later to be his H.S. when he was assistant to Sir Henry Howse. At that time accommodation was arranged for the Assistant Surgeon to sleep at the Hospital during his " take-in " week. Later on Jacobson took a house in Cumberland Place and it became the duty of his H.S. to fetch him down to the hospital if an " emergency " occurred necessitating his presence. Only once, this mission fell to my lot and I found him on nearer acquaintance more genial than at any other time. Unfortunately, as an Oxford Classic, son of a Bishop, and on the Permanent Staff of the Hospital he was too conscious of both a social and mental superiority, to be at ease with a struggling and aspiring democratic youth. He married late in life and as will be remembered tragically lost his only child, who was drowned accidentally in a pond close to the house. Charles Higgins's remark when I told him of the event was characteristic. " With an only child I should have taken care not to have had a pond ; if I had had a dozen I might have enlarged it."

Lucas's lectures were popular because he drove directly towards the oncoming examination. How humiliating it is to realise that the more " broad " the Memoria Technica became the closer they stuck in one's memory !

It is one thing to stroll leisurely round the Ward accompanied by H.S., Sister, Nurses and Students, and quite another to spend hours in the Out-Patient department, with " the great un-washed and the smell of poverty " encircling one ; in the early part of the century O.P's. was more crowded than now. I was H.S. to Sir Henry Howse and although his operations always took place in the mists of the carbolic spray, he seldom ventured to

undertake any abdominal operation. His speciality was excision of the knee-joint, an operation which was very successful in his hands.

But my most instructive time was the full month as Extern when I came into my first real contact with the distressing poverty then existing in the Borough. " Cards " were distributed to expectant mothers about 4–6 weeks before the estimated date of birth, and we Externs took it in turns to receive them. Generally it was late at night when the porter summoned us, with " card for you, sir " and we took up our obstetric bag and followed the father, who had been disturbed out of his sleep by the order of the midwife or at the onset of " pains " by the wife ; often a rough uncouth lad, weary after his day's work and half ashamed of his part in the event, but always grateful and kindly towards " the doctor " who followed him into Tabard Street, or the vicinity.

If we arrived too soon, we had to wait in a small bare room, and watch the vermin chase one another up the walls, after having hurried all the other occupants out of the room. Happily the birth was usually straightforward and best left alone to nature to accomplish. The doctor having washed and cleaned-up both the patient and himself, was escorted, at least as far as the main street, having left a promise to look the patient up in a day or so. I was again in the Charity District twelve months afterwards when as Obstetric Assistant I was in charge of the whole body of Externs and a Resident in the Hospital. Alfred Salter was my colleague, and I have never since that time felt towards " the poor of London " as before ; it widened my whole reaction to life and its vagaries, and did something to save me from being too oblivious of my duty to my neighbours. The years 1890–1892 were memorable as regards both the numbers and attainments of the men who joined the Hospital ; I soon recognised that both in education and ability my possession of these factors was over-topped and I was amongst a number who far out-distanced my very average abilities. Nevertheless with the generosity of youth and the equality of directive we shared a life which was rich and as far as I was concerned very liberal. Iven Spriggs, R. P. Rowlands, W. C. C. Pakes, Robert Howard, C. H. Fagge, F. Stewart, W. E. Plummer, were all companions of those days.

In 1896 somewhat late (as I was delayed by taking my 1st Fellowship before qualifying), I sat for my finals and became medically and surgically qualified, but before I sat for my final Fellowship I did several locums as I was then over twenty and not earning a penny. In Lincolnshire, London and Southsea, I widened my experience. The average pay was then £3 3*s*. 0*d*. a week. The doctor usually took 3–4 weeks off and left one in sole charge of his patients and surgery.

It is interesting to consider what is included by " Guy's Hospital ". Thomas Guy himself founded an institution for the medical care of the poor and destitute and its continuance for two hundred years and more stands firm on that rock, but it is much more, a Medical School, a Nursing School, a Dental School, with a host of satellite organisations clustering around as special departments. The influence of the Hospital has gone to the far corners of the earth and its real dynamic force springs from the ethical faith and urge of its Founder and its members.

In the College we had a general library, which with the Pavy Gymnasium and the Swimming Bath contributed to the amenities of life amongst us Residents. Sir James Goodhart installed the electric light in the gymnasium and on most Saturday nights some social reunion was planned ; either a smoking concert or a non-medical lecture. The Physical Society pursued its long and erudite career and produced some excellent papers.

Honor Oak was rather inaccessible to those living in the north of London, but to those who lived in the College or the south, it was of the greatest value.

VOYAGE TO SOUTH AFRICA, 1898

After a series of locums I was told that if I applied to a certain shipping firm in Leadenhall Street, I could obtain a free passage to South Africa and back, as a ship's doctor. This I did and obtained a long holiday and great experience at comparatively little cost. I went to Natal in a cargo steamer carrying a handful of passengers ; (a Rennie steamship, the Illovo, 2,000 tons) one of a fleet of about a dozen vessels built to pass over the Sand-bar at the entrance

to the harbour at Durban. It was during the Spanish American War. I remember we coaled at Portland and not as was usual at Las Palmas. We reached Durban in about three to four weeks and remained here a week. I was invited by the agent of the Company to stay at his house on the Berea and enjoyed my stay in Natal immensely, getting a glimpse of Colonial life and receiving everywhere great hospitality. This was before the South African War which broke out a year or two afterwards.

After staying at Durban a week we moved up the East Coast and called at Inhambane, Beira and Delagoa Bay.

My only medical experience beyond an occasional minor ailment affecting the crew was when we reached Delagoa Bay. Having unloaded some heavy stuff and worked away into the night, about midnight I was summoned by the Captain to " take over " . One of the men-factors resident at the port had, in the gloom, inadvertently stepped over the edge of the then empty hold, and had fallen from top to bottom breaking his leg. We improvised a stretcher, which was lowered to the bottom of the hold and by means of the donkey-engine hoisted the patient and stretcher to the top deck and swung him over and down the outside of the ship, lowering him into a small open boat. Luckily it was a still night and a full moon and by keeping the victim under chloroform, he escaped much pain and shock. We left him in the Portuguese Hospital and I heard subsequently that he did well.

Business up the East Coast took us to Inhambane which as far as I can remember now, only consisted of a few corrugated iron shelters. We returned, rounding the Cape and passing up the West Coast reaching the Canaries again and England in the late Spring.

I employed the rest of the year getting through the Final Fellowship.

By this time the South African War was evolving and a clash of interests ensued. The Hospital was seeking more skilled helpers, training them for their jobs. The State was forming the Territorial Army and was seeking aid from all the Medical training schools for an extension of the Medical Army Corps. In the meantime Sir Charters Symonds and Dr. Lauriston Shaw, the Dean, had both approached me after getting my Fellowship to take up " Eyes " and apply for the appointment of Ophthalmic Registrar and Clinical Assistant ; this I did, thereby forfeiting my chance of joining up under the wing of Sir A. Fripp and going to South Africa again. The Hospital authorities were concerned at that time with meeting the increasing growth of the O.P's. departments and would not keep my appointment in the Ophthalmic Department open if I remained away for an indefinite time. So I had to decline the lure of South Africa and take on the routine work of Ophthalmic Registrar and Tutor. The Senior Ophthalmic Surgeon was ill and seldom appeared except on one afternoon in the week, so that in these capacities I served the Hospital and School, as long as Jacob served for Rachel !

I cannot leave this record of early years at the Hospital without recording my debt to my chief, Mr. Charles Higgins. He was a very gifted surgeon and the most generous of men in his dealings with his juniors—all the knowledge and experience he could pass over to me he did, and my gratitude to him is great.

After qualifying I became aware of the keen competition around me.

There were few staff appointments and vacancies were (except in rare cases) very far apart and very capricious in time. In 1898 I passed my final Fellowship, for which I had been coached by a team of the Bart's. staff. The number of candidates from Guy's was not sufficient to warrant a special class being arranged there and Bart's. welcomed qualified men to their special class. I joined up and came to know and be grateful to many Bart's. men for most valuable teaching.

When first I took up Ophthalmology the Continental, especially the German influence, was at its highest. Fuchs of Vienna published a treatise of Ophthalmology which was quickly translated by an American, and became recognised as the criterion for teaching, superseding Mackenzie's book which was considered old fashioned.

Hirschberg of Berlin, undoubtedly a scholar of vast ophthalmic knowledge both new and old, Landolt, of Paris, and Snellen of Utrecht, had international reputations. All these men I met in their clinics when I spent three

months travelling about on the Continent after the Boer War had ended for which I was given special leave. I went first of all to Frankfurt and saw Prof. Ehrlich. At that time " 606 " was being tried out by the profession. Wiesbaden was only a short distance away by train and I saw Prof. Pagenstecker's Clinic which I found mainly patronised by Americans and English.

From Frankfurt I went to Vienna via Salzburg.

In Vienna Prof. Fuchs was in charge of a much larger Ophthalmic Clinic than I found anywhere else.

There was much poverty in Vienna and the extremes of social welfare more obvious. However, Vienna harboured more organised arrangements for the visiting medical student and supported a larger number of these than of their own nationality. Work started at eight o'clock in the morning, Out-Patient Clinics were followed by operations and these by lectures. The afternoons were given up to private study.

At that time orchestral and operatic music was within the reach of students everywhere. The municipal or State opera houses were always open during the season and at very moderate charges. In Vienna the floor of the opera house was divided into two halves, and officers in uniform could stand on one side and students on the other for a krone and stay there for the whole performance. From Vienna I went to Berlin where I found the atmosphere less friendly. The daily papers were full of anti-British cartoons. Some, particularly malicious, of Boer children transfixed by British Tommies' bayonets ! I must say however that I did not receive any discourtesy personally, only that rigid courtesy which is so freezing and so different to the companionable charm of Vienna. From Berlin I journeyed to Holland and visited the Snellens at Utrecht returning to England via the Hook. Most of the artificial eyes available at home were made at Wiesbaden, a fact we did not appreciate until the first war entirely denuded England of them ; a school of technical ophthalmology was inaugurated in Thavies Inn, under an optician and we there started to learn how to make them ourselves.

Before the war a man of German extraction, whose real name had been Muller, was almost the only man in London who could make an artificial glass eye to order, matching its fellow, and he too failed us in 1915, owing to ill-health.

1914—1918

When the Government was organising the Territorial Army, Lord Haldane elaborated a scheme for the formation of 4 Hospitals to be located in London to serve as Base Hospitals. He arranged for these to be staffed by the personnel of the Teaching Hospitals and St. Thomas', the London and Guy's were made responsible for the 2nd London Base Hospital scheduled at St. Marks' College, Chelsea. Soon after the first war started John Fawcett asked me if I would undertake the supervision of the Ophthalmic work there. I agreed and by doing so influenced my career for the next ten years. Amongst the early casualites received at Chelsea were two men blinded by shrapnel ; Mr. Pearson, afterwards Sir Arthur Pearson, came to visit them in pursuance of his offer to take the blinded under his special care after they were discharged out of the Army. He applied to the War Office for permission to have all blinded men drafted to Chelsea and not dotted about all over the country. This the War Office agreed to. We published two pamphlets at the end of the war, one an analysis of 15,584 ophthalmic cases (H.M. Stationery Office) treated at St. Mark's. The other a list of over 1,000 blinded men who were treated in the Wards of the Hospital, and afterwards passed on to St. Dunstan's.

By the kindness of Sir Arthur Pearson I was able to follow most of the cases for a long time and some of them suffering from traumatic cataracts and superficial traumatic injuries were able after treatment to return to normal life. Over two thousand blinded men passed through the 2nd London after receiving early surgical treatment before being finally invalided out of the Army to the " after-care " of St. Dunstan's. This involved an enormous amount of work carried out mainly by my colleagues and assistants from Guy's. The work was heavy and arduous, but gave all concerned a real sense of patriotic service.

This brings me to a subject too frequently forgotten. We have a National Medical Health Service now, but the profession had organised one long ago in the Borough and other parts of London. Tens of thousands of the sick poor were treated free in the large general hospitals in London for twenty or thirty years early in the century. I remember receiving a letter from a patient asking if she might enter Guy's as a paying patient, on similar terms to a neighbour and friend of hers. On enquiry I found the said friend had been in the hospital for four weeks, undergone a major operation, and on leaving had presented the almoner with 10*s*. !

But beyond the work directly carried out in the hospital it was the custom for any charitable and philanthropic institutions to ask a member of the staff to give some help and assistance in the care and treatment of their pensioners or inmates.

One was always coming across the names of colleagues who were acting as Hon. Specialists and Consultants to such. My predecessor left me the responsibility of looking after the Deaf and Dumb School in the Old Kent Road, which before the Education Act gave the authorities power to provide all deaf and dumb children with school advantages, was very badly off, and could only care for very limited numbers ; but when a capitation grant of £40 a year was made, the school was able to move to Margate where there is an Institution educating 400 Deaf and Dumb children under expert supervision.

Another interesting welfare effort came to my notice, after publishing the notes of " Two cases of Leprosy of the Eyes." At that time leprosy was almost unknown in London and only occasionally some stray sufferer from the Colonies turned up ; but the patients were kept in the isolation wards at all times. However, I was approached by the authorities unofficially and asked to look after a small Leper Colony I found existing in the Essex Marshes. It was under the care of a Guy's Sister (Miss du Boulay) who gave up her whole career to supervise this work and did so for many years. Now-a-days a far brighter outlook exists among those who are carrying on this work and I am assured that, given early diagnosis and improved hygienic conditions many cases recover.

Another of my reminiscences is of a visit to me of my friend Tudor Thomas. He was then just starting his tentative efforts to graft the Cornea or rather small pieces of the Cornea ; he asked my help in obtaining some material. I was able to procure him a case in Barnabas Ward and the graft, although small, did live and survived for a year or two fairly transparent. Since then he and others have improved the technique and now apparently such operations are an overwhelming success.

There were three main ophthalmic conditions. Cataract, Glaucoma and Detachment of the Retina which primarily interested the profession, the Treatment of cataract, and its prevention, Glaucoma, because its manifestation is very irregular and its pathology still obscure and varied. But it was with Detachment of the Retina that the despondency of the profession was in 1900 most concerned. Prof. Gonin, a French Swiss, had for many years urged on the continental societies much more effective treatment of this trouble in which for some cause or other the retina is pushed or pulled away from its nutritional base and thereby rendered functionless. In 1920 or thereabouts, the Americans issued a questionnaire the import of which was, that the treatment of Detachment of Retina was so rigorous and the results so unsatisfactory that the continuance of the then official treatment was not justified.

Gonin's suggestion was that the application of a Cautery to the Sclera over the area of the detachment, had in some cases in which he tried it, given good results, the detachment becoming attached again and the retina functioning. At that time Gonin's writings had fallen flat. No one had taken any notice. Suddenly Voght a German Swiss working in Zurich with a great surgical reputation, published a report of a case in which he had obtained complete success by using Gonin's method and the whole approach was changed. The fact of Voght's success reached me at the end of the year and on my way back from the South of France where I was spending Xmas, I determined to return via Switzerland and see Gonin, which I did and published an account in the *B.M.J.* (Vol. 1, 1930, p. 940) of my visit, the first in English of the new treat-

ment. Since then many have used the technique and improved on the original so that now Detachment of Retina although serious is not so absolutely hopeless a trouble as it was before Gonin's work had been established.

It was abroad and in the Colonies that eye diseases flourished ; India, Egypt and the hot tropical sandy areas of the globe. In Britain the per cent. of surgical eye cases was small and the number of Ophthalmic Surgeons limited, to whom the luck of obtaining operative experience occurred. The Indian Medical Service supplied by far the best opportunity to the Ophthalmic Surgeon of gaining material for his surgical skill and that is true up to the present time. London was supporting at one time several Ophthalmic Surgeons who had been practitioners in India with enormous surgical and clinical experience.

When the 1st World War opened, Tommy Atkins was not allowed to appear on parade with spectacles and until the war had started the War Office standard of vision had to be reached without the aid of spectacles. But work in all the Hospitals began to increase enormously at the beginning of the century. Medical science was starting its rapid career. In all departments alike there was a definite urge by the Hospital Administrators to increase the numbers of attendances, due to the policy of the then recently organised King Edward's Hospital Funds, allocating their money according to the number of beds and patients seen annually ; the larger the numbers the larger the grants. What was lost sight of was the physical strength of those competent to deal with these vast numbers. Several departments including Ophthalmology required not only willing service but a definite if limited amount of technical knowledge in order to be helpful. As I said above Ophthalmology was in the eighties the only speciality then in action that counted, and a certain amount of knowledge was expected of a student at the examinations, but as the specialities increased and the range of knowledge in medicine and surgery enlarged, the risk of " by-passing " the Ophthalmic appointments became less and less, and the subject was crowded out at the Final examination. So the importance of the appointment of dresser in the Eye Wards became less and less. Effective assistance was often limited to the surgeon in charge and one or at most two willing Assistants and as an afternoon session brought 60–80 patients and in addition, some of the personnel of the hospital, nurses and students, who were always given priority, the task became very exhausting both physically and mentally.

What may seem to some to be the monotony of an Ophthalmic Surgeon's life can be broken by unexpected incidents such as befell me once. A patient with whom I had been talking in my consulting room in Devonshire Place, suddenly collapsed and died within a minute or two. The appointment had been made over the telephone and the patient, a middle-aged lady, was shown into my consulting room by the man-servant merely announcing her name. I had seen her some four years previously and her visit to me was merely a routine one. It was during the inter-war period and she mentioned among other things that she had given up her old home and was moving about among friends and hotels trying to find a new resting place. The interview was finished and I was writing out a prescription altering her reading glasses when she suddenly slid to the ground, and died straight away. My shock and concern were relieved by my interview with her husband who was waiting for her downstairs ; he received the news of the tragedy quite calmly, and told me that he had been warned by a Neurologist that this might happen.

Diagnosis of an aneurysm in her chest had been made some 4 months previously.

In my early days, most examinations of the Fundus Oculi and all Retinoscopies were done by the use of a very simple but most effective Ophthalmoscope. Mechanical apparatus made a leisurely appearance in the consulting room ; now however things have altered and I leave it to my successors to describe the uses of the elaborate and valuable instruments with which their consulting rooms now rival the interior of the engine room of a submarine ! It is certain that in the past, patients found an immense comfort and benefit from the glasses prescribed for them—but a new age has come when greater strain is put on our vision from childhood to old age—this age of films and television. It remains to be seen what response Nature will make to these demands.

The Anatomy of Uterovaginal Prolapse

By J. M. HOLMES, M.B., B.S.

The Anatomy of the Pelvic Floor

IN the female the pelvic organs are supported by three layers of tissue ; 1, the visceral pelvic fascia. 2, the levator ani muscles. 3, the urogenital diaphragm.

1. *The Visceral Pelvic Fascia.* This forms a continuous sheet across the cavity of the pelvis. On each side it is continuous with the fascia on the pelvic surface of the levator ani and thus with the parietal pelvic fascia, which covers the pelvic surfaces of the parietal muscles. In certain situations this visceral fascia is thickened to form well defined condensations of white, fibrous, connective tissue, with some plain muscle fibres intermingled. These are known as the transverse cervical ligaments (Mackenrodt's ligaments), the uterosacral ligaments and the pubocervical ligaments.

The Transverse Cervical Ligament. This is a bilateral crescentic structure, which is attached to the fascia covering the lateral masses of the middle three sacral vertebræ, the origin of the piriformis muscle and the posterior portion of the obturator internus. The fibres pass round the side of the pelvis to reach the side of the supravaginal cervix and the upper half-inch of the vaginal fascia, including the roof of the lateral fornix. It lies above the levator ani muscle and below the uterine vessels, in the base of the broad ligament. It is pierced by the middle rectal vessels and nerves, which form the rectal stalk.

The Uterosacral Ligaments. These are two short ligaments, which arise from the fascia overlying the periosteum of the lateral mass of the third sacral vertebra. The fibres pass forwards on each side of the rectum for 1½ inches to reach the cervix above the level of the internal os. Antero-laterally they are directly continuous with the fibres of the transverse cervical ligament and medially they form the walls of the recto-uterine pouch.

The Pubocervical Ligament. This is the name given to the condensation of fascia, which extends from the lower part of the posterior aspect of the pubic bones and the symphysis pubis to the supravaginal cervix. Between the symphysis pubis and the neck of the bladder it forms a solid wedge of connective tissue, through which the urethra passes. Between the neck of the bladder and the cervix, however, the movement of the bladder base upon the vagina and cervix has given rise to fascial layers, a thin vesical fascia and a thick vaginal and cervical fascia.

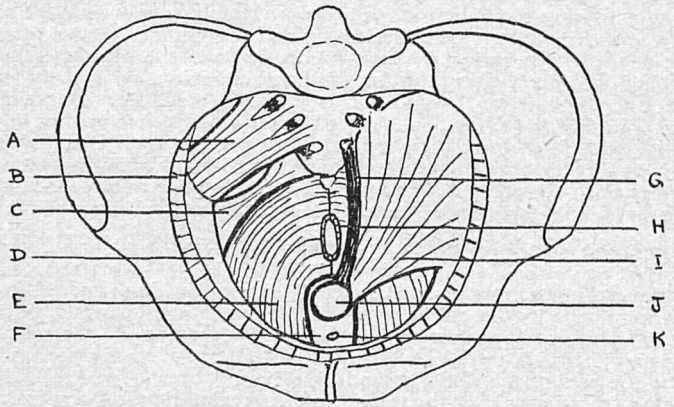

FIG. 1

A. Piriformis muscle.
B. Obturator internus muscle.
C. Ischiococcygeus muscle.
D. Obturator fascia.
E. Levator ani muscle.
F. Paraurethral connective tissue.
G. Utero-sacral ligament.
H. Deep external sphincter ani muscle.
I. Transverse cervical ligament (Mackenrodt).
J. Vagina.
K. Urethra.

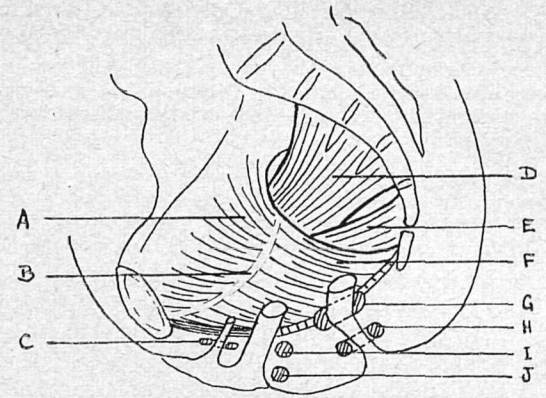

FIG. 2

A. Obturator internus muscle.
B. White line of the pelvic fascia.
C. Sphincter of the membranous urethra.
D. Piriformis muscle.
E. Ischiococcygeus muscle.
F. Levator ani muscle.
G. Deep external sphincter ani muscle.
H. Superficial external sphincter ani muscle.
I. Deep transverse perinei muscle.
J. Superficial transverse perinei muscle.

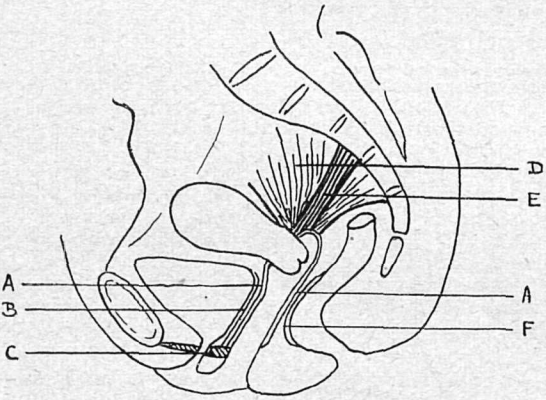

FIG. 3

A. Vaginal fascia.
B. Vesical fascia.
C. Paraurethral connective tissue.
D. Transverse cervical ligament.
E. Utero-sacral ligament.
F. Rectal fascia.

2. *The Levator Ani Muscle.* It originates from the middle part of the posterior aspect of the symphysis pubis to within half an inch of the midline, from the inner surface of the ischial spine and from the white line of the pelvic fascia overlying the obturator internus and obturator canal. The fibres sweep downwards and medially towards the midline around the urethra, vagina and ano-rectal junction to be inserted into the perineal body, the deep external anal sphincter, the anococcygeal raphe, the sides of the coccyx and the fourth and fifth pieces of the sacrum. Gowland and Cairney also believe that some fibres fuse in the midline between the upper part of the urethra and the vaginal vault.

Physiologically the muscle may be divided into (*a*) the thin, weak iliococcygeus and ischiococcygeus, which form the postero-lateral part of the pelvic floor, and (*b*) the strong, thick puborectalis and pubococcygeus, which embrace the lateral margins of the vagina one inch from the orifice, support and lift the perineal body and embrace the ano-rectal junction lateral to the internal anal sphincter. When this muscle contracts it constricts the vagina, elevates and dilates the anal canal, and straightens the ano-rectal junction flexure.

3. *The Urogenital Diaphragm.* It consists of three layers, the perineal membrane, the pelvic fascia and between these two the contents of the deep perineal pouch.

The perineal membrane is attached to a ridge on the inner surface of the pubo-ischial rami from just below the body of the pubis backwards for two

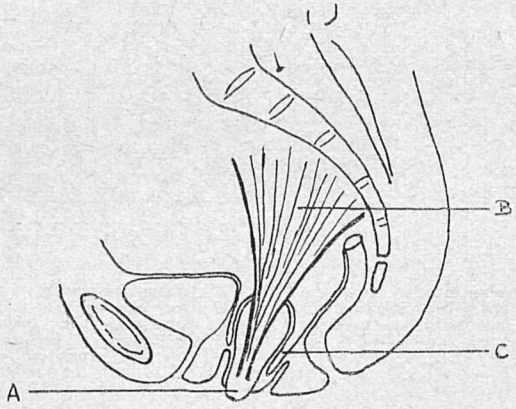

FIG. 4

A. Uterus prolapsed to the 2nd degree.
B. Elongated transverse cervical ligament.
C. Sliding enterocele.

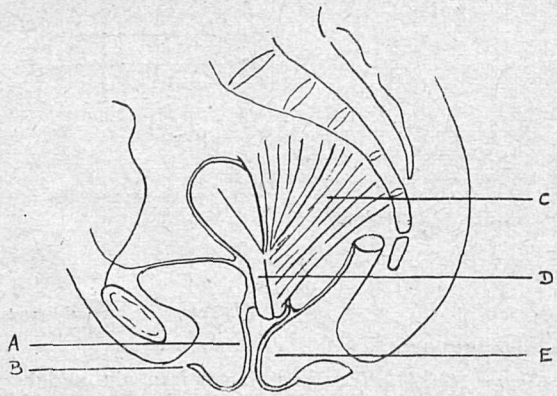

FIG. 5

A. Cystocele.
B. Dislocated urethro-vesical junction.
C. Transverse cervical ligament splayed out.
D. Elongated supravaginal cervix.
E. Rectocele.

inches to the anterior end of the falciform ridge on the anterior part of the ischial tuberosity. It forms the floor of the superficial perineal pouch and is pierced by the urethra, and several small blood vessels and nerves.

The middle layer is muscular and consists of the sphincter of the membranous urethra, the deep transverse perineal muscle, blood vessels and nerves.

The upper layer consists of pelvic fascia which is continuous laterally with the obturator fascia.

The urogenital diaphragm is firmly attached to the urethra, the vaginal fascia and the perineal body and slings these structures to the side of the pelvic wall.

The Supports of the Uterus

When the transverse cervical ligaments are strong, intact and of normal length the cervix cannot be pulled down below its normal level 1½ inches above the pelvic floor. Prolapse of the uterus must, therefore, necessitate elongation of these ligaments and no operation for prolapse can be effective unless these are shortened and the cervix returned to its normal level in the pelvis. The uterosacral ligaments assist in uterine support, hold the uterus back towards the sacral hollow and with the round ligament help to maintain anteversion of the uterus. The uterus rests on the bladder and thus indirectly it gains some support from the levator ani muscle, but as compared with the transverse cervical ligament this is of small importance.

The Supports of the Anterior Vaginal Wall and Bladder Base

The transverse cervical ligaments are inserted into the lateral fornix, and the upper vagina has in addition a strong attachment to the cervix uteri. Thus directly and through the supports of the uterus itself, the vaginal vault is suspended in the pelvis.

The weak vesical and strong vaginal fascia and more laterally the paracolpos of connective tissue support the bladder base and these are assisted by the medial fibres of the levator ani (puborectalis).

The Supports of the Urethra

The urethra and bladder neck are supported by the urogenital diaphragm including the sphincter of the membranous urethra, and a wedge of connective tissue, which is continuous with the vesical and vaginal fascia.

The Supports of the Posterior Vaginal Wall

The levator ani, the urogenital diaphragm, including the deep transverse perineal muscle, the superficial perineal muscles and the strong vaginal and weak rectal fascia support the posterior vaginal wall and ano-rectal junction.

The Aetiology of Prolapse

The causes of prolapse include tearing, stretching and loss of tone in the visceral pelvic fascia and tearing, stretching, loss of tone and divarication of the levator ani and urogenital diaphragm.

Predisposing factors include the toxic effect of infection, diabetes and other debilitating diseases upon the tone of voluntary and involuntary muscle fibres, numerous pregnancies repeated at frequent intervals resulting in subinvolution, and the regressional changes which occur after the menopause (80 per cent. of cases are post-menopausal).

During the passage of the fœtal head through the pelvis :—

1. The bladder is lifted up into the abdomen.
2. The urethra, which is fixed by connective tissue, either remains in its original position or is pushed downwards.
3. The lateral vaginal walls and levator ani are pressed outwards and pushed downwards.
4. The perineal body, urogenital diaphragm and anus are pushed downwards and backwards.

Normally these structures are stretched and recovery may be almost complete, but in cases of cephalo-pelvic outlet disproportion, which are often associated with a long labour and difficult forceps extraction, the structures may be torn and severely separated and in such cases inadequate repair must eventually result in prolapse.

Stress Incontinence

Tearing and stretching of paraurethral connective tissue and the anterior portion of the urogenital diaphragm, including the sphincter of the membranous urethra, results in dislocation backwards and downwards of the urethro-vesical junction. This displacement and loss of sphincteric control results in stress incontinence which can be corrected by reconstructing the torn tissues and restoring the urethra to its normal position. On rare occasions it may be necessary to suspend the urethra by a retropubic fascial sling derived from the anterior rectus sheath.

Cystocele

A bulging backwards and downwards of the anterior vaginal wall and bladder base occurs when the supporting vaginal fascia is torn and divarication of the levator ani increases the size of the urogential hiatus. Cystocele is corrected by returning the bladder base to its normal level, reconstructing the torn vaginal fascia and approximating the medial fibres of the levator ani. Additional support may be obtained by plication of the transverse cervical ligaments in front of the supravaginal cervix.

Because the ureters are surrounded by parametric tissue, uterine prolapse is inevitably associated with descent of the bladder base and during the cure of procidencia this must be corrected.

Elongation of the Supravaginal Cervix

Gravity, aided by a raised intra-abdominal pressure, tends to increase the pull of the vaginal fascia upon the uterus and this may be assisted by the progressive enlargement of a cystocele. If the supports of the uterus are adequate the supravaginal cervix elongates, but where the uterine supports are weak the uterus will gradually descend the vaginal canal between the divaricated levator ani.

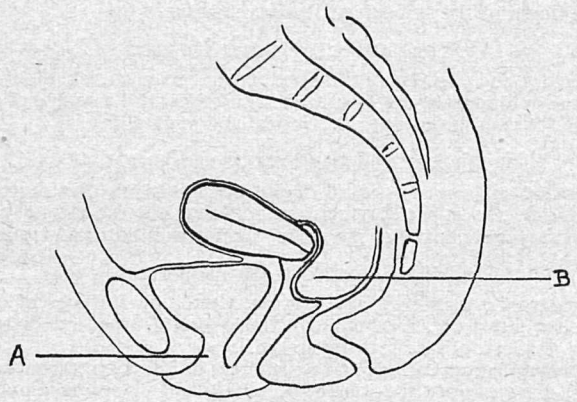

Fig. 6

A. Dislocated urethro-vesical junction. B. Sacculated enterocele.

Prolapse of the Uterus

During labour the incompletely dilated cervix may be pushed in front of the fœtal head and this is most likely to occur where bearing down efforts have been encouraged before the completion of the first stage. As a result the transverse cervical and other supporting ligaments of the uterus becomes stretched or torn and this may result in permanent uterine prolapse.

In order to return the vaginal vault and uterus to their normal position in the pelvis it is essential to shorten the transverse cervical ligaments by plicating them in front of the cervix as in the Manchester repair operation or by removing the uterus and suturing the shortened ligaments across the vaginal vault as in vaginal hysterectomy. Added support is provided by reconstructing the levator ani sling between the vagina and rectum.

Enterocele or Posterior Vaginal Hernia

This hernia may be congenital or acquired. The congenital type is a thin, narrow, elongated sac, which originates between the uterosacral ligaments just behind the cervix and descends in the rectovaginal septum, as far as the levator ani in severe cases.

The acquired type occurs by one of two mechanisms. During labour the upper part of vaginal fascia may become torn and this leads to sacculation of the anterior wall of the pouch of Douglas into the rectovaginal septum towards the vagina. The sac is shorter, more rounded, but usually considerably larger than the congenital type.

The most common acquired type, however, occurs as a result of uterine descent which, because of the firm attachment of the vaginal fascia to the supravaginal cervix, must drag down the posterior vaginal wall and cause a sliding hernia of the pouch of Douglas.

Treatment consists of opening the pouch of Douglas, excising the excess of peritoneum which forms the hernial sac, reclosing the peritoneal cavity and approximating the uterosacral ligaments in the midline.

Rectocele

During labour the perineal body and posterior vaginal fascia are frequently split, infection is introduced and during the process of healing the fascial layers become fused. This interferes with the normal action of the levator ani, which now pulls on the rectovaginal septum, increases the normal ano-rectal flexure and causes a bulging forwards into the vagina between the divaricated levator ani muscles.

The condition is corrected by dissecting between the vaginal and rectal fascial layers, pushing the rectum upwards, approximating the levator ani muscle in the midline and reconstructing the perineal body.

References

Curtis, A. H., Anson, B. J., and McVay, C.B. (1939). *Sur. Gynæc. Obst.*, **68**, 161.
Curtis, A. H., Anson, B. J., and Ashley, F. L. (1942). *Surg. Gynæc. Obst.*, **74**, 708.
Maguire, F.A. Chapter in *Modern Trends in Obstetrics and Gynæcology*. Edited by Bowes, K. pp. 1–30. Butterworth & Co., London.
Pacey, K. (1949). *J. Obst. Gynæc. Brit. Emp.*, **56**, 1.
Peham, H. V., and Amreich, J. (1935). *Operative Gynæcology*. Trans. by Ferguson, 1st Edn. Philadelphia. Lippincott.

Correspondence

Music Club Concert

SIR,—May I use your columns to give notice of a concert to be given by the Guy's Hospital Music Club on May 29th.? The programme—choral, vocal and instrumental—includes Bach's "Magnificat", one of the Borodin "Polovtsian Dances" and a recital of English songs from Purcell to Warlock.

Tickets for reserved seats for this concert, which will be held in the Physiology Theatre at 7.30 p.m., are available on application to the secretary. No charge for admission is made, but there will be a collection to defray the expenses of the club.

Yours, etc.,

Dental School,
Guy's Hospital.

C. PETER BRIGGS,
Hon. Secretary.

Bermondsey Children's Flats

SIR,—Dr. MacKeith suggested in his letter to you that a row of six houses in Snowsfields should be preserved for their sociological interest and used for the Bermondsey children's flats. The facts regarding these houses are that those to the north side of the street stand on the site of the new Guy's and their demolition, if it has not in the meantime been ordered by the District Surveyor on grounds of danger, must inevitably take place before building operations on that portion of the site can begin. The houses to the South of the street occupy land which must be surrendered to the Bermondsey Borough Council for road widening, in compensation for the roads which are to be closed by the rebuilding scheme.

Yours, etc.,

B. LEES READ,
Clerk to the Governors.

Sweeney

SIR,—These verses were written as a prothalamion for two people, now happily married in South Africa. They assure me that, should any others publicly identify themselves with either of the protagonists, they will be sued (pace, Sir Osbert) for imposture.

Yours, etc.,

P. R .M.

SWEENEY AND FLORENCE NIGHTINGALE

(With apologies to T. S. Eliot)

ὤμοι πέπληγμαι καιρίαν πληγήν ἔσω

Apeneck Sweeney spreads the towels,
Slashes along the sternal ridge,
And puckers up his hanging jowls
To crack a costal cartilage.

He curses as his temples throb
(Down each a saline rivulet),
And bellows for a sterile swab
To wipe away the streaming sweat.

His brow cool-mopped he checks his rage,
And stems the flood of simian slang,
As, like a tame orang-outang,
He enters the thoracic cage.

Turning to change a perished glove,
Catches a glimpse of shining eyes :
The arrows of undying love
Strike deep, but do not agonise.

And now he stabs the atrial wall,
Jesting the while that only he
Could tackle the impossible :
A bloodless cardiotomy.

The wounded surgeon plies his task,
Missing the irony of fate ;
The goddess smiles behind her mask,
Which makes her glance acuminate ;

And smiled in such another case,
As Cupid's more substantial dart
Pulsated in as hard a heart,
Stuck in an intercostal space.

A Day at Guy's Hospital

SIR,—The enclosed was sent to me by a friend of mine, saying that it was found among some old papers belonging to his grandfather, who is reputed to have been a patient here for about two years, fifty or sixty years ago. I have looked up the records and find that the man who wrote this was a patient under the care of Sir Charters Symonds in Job Ward, with malignant stricture of the œsophagus, in April, 1899. I thought it might interest your readers if you have room to publish it at any time.

Yours, etc.,

W. D. DOHERTY,
Superintendent.

A DAY AT GUY'S HOSPITAL

Summoned from the country by wire to meet a celebrated specialist at Guy's Hospital, an unavoidable delay caused me to miss my appointment. Arrived at Guy's I was at once referred to one of a small army of students, who no sooner heard my name than he forthwith commenced to Maxim me with a marvellous shower of wordy volubility.

" My dear fellow," said Mr. Bob Sawyer's next of medical kin, " doctor says you're to stay here till tomorrow for needful rest. ' Good house, nice beds ' here, and they don't put down half-a-crown on the bill for merely looking at the waiter. Hotel Cecil's not in it, my boy, and as for the Hotel Metropole, well ! it's miles behind. Everything found, meat, drink and good entertainment, a bed of down, unlimited bougies, a georgeous robe de nuit and all that the human heart can possibly desire. The far-famed Hotel de Guy will take a lot of beating. We make up about 650 beds and count patrons on our books by many tens of thousands, and this is up against the rival hotels. Our parting guests always look happier and more thoroughly satisfied than the coming guests. Shall I show you upstairs ? "

Accepting my young friend's offer, I was duly escorted to a huge room on the first floor known to the authorities and other interested persons as " Job Ward ", and was in due course introduced to the head of the ward staff, the experienced chief of a band of splendid workers, known as " Sister ".

" I can't do better than leave you with Job's sister. No other hotel can boast such a treasure. They couldn't, if they tried, turn on anything better than Jonah's mother-in-law, or some equally doubtful acquisition. Lucky fellow, Job, to have such a sister. Fare thee well."

Left to myself, I soon began to take stock of my surroundings. " Job ", I found, contained about 30 beds all told which were mainly, if not wholly, occupied by cases calling for surgical attention. Needless to describe the nature of the various " troubles ", and some of them were indeed " troubles " —deep-seated, over-running with pain, and apparently hopelessly incurable. But during my short stay, cases of this kind donned their clothes after treatment and a needful rest and walked out capable bread-winners leaving, like Christian, their load behind. Very touching was the example of helpful sympathy between " cases "—to see an amputated arm taking an amputated leg case round the ward for an airing, and to note the almost womanly care and devotion exhibited. The ward, I soon discovered, was in reality a Club on the help-one-another principle, where suffering retired as sweet sympathy made its power felt, and where the bright lamp of hope was kept burning by the common bond of sympathetic suffering with its reactionary tendencies.

The ward-day at this time of the year starts early—say at five o'clock, although six o'clock is the official recognised opening hour. Before six, silence is strictly enforced, in the interest, of course, of the general body of sleepers. Although the five o'clockers were not recognised as being officially awake, they were unofficially refreshed and unofficially served with ablutionary materials. The nurses were only too pleased to take time by the forelock ; they were never by any chance seen to grab desperately at the rear-lock, nor to emulate poor Bob Cratchit in his fruitless efforts to overtake nine o'clock ! The breakfast, lunch, dinner, tea and supper were synchronised apparently from Greenwich, and so with all other daily duties, they were regulated apparently not by human volition, but by some hidden force automatically worked, rivalling Old Time in its unerring regularity. For instance, at eight o'clock when the day nurses were due, it was difficult to say whether they or St. Saviour's clock had the advantage. It was, I was told, always a dead heat. Much the same thing happened at ten o'clock when the students' ward-day began.

They began the day by interviewing the new cases, and as I came within this category, I was waited upon by a perfect swarm of students who, under experienced guidance, diagnosed me, discussed me from all points of view,

sat upon me as I had never been sat upon in life before, and finally adjourned to sit upon me elsewhere, and perhaps turn me into copy for the benefit of the whole medical profession and of suffering humanity in general. There was an earnestness about their speculation which I was not prepared to see. Mr. Ben Allen was not there, nor Mr. Bob Sawyer, but students, the apparent antipodes of the two worthies aforesaid.

The great event of the day is always the arrival of the doctors and their assistants at two o'clock. With a cheery word and a pleasant smile, and words ever promising hope and scattering all tendencies to fear and anything approaching a feeling of despair, the doctors go their daily round.

ACADEMIC

May		
		Exhibition. Surgical Department. "The Treatment of Peritonitis."
19th	1.00.	Dr. McArdle. Clinical Lecture.
	5.00.	Dr. Alfred Blalock. The Carbutt Memorial Lecture. "Cardiovascular Surgery."
20th	1.00.	Mr. Kilpatrick. Clinical Lecture. "Carcinoma of the Prostate."
21st	5.00.	Professor W. R. Spurrell. "Hunger and Thirst."
22nd	5.00.	X-Ray Meeting. Gordon Museum.
23rd	1.00.	Dr. Douthwaite. Clinical Lecture.
	2.15.	Department of Medicine. Combined Round.
24th	10.00.	Clinico-Pathological Meeting. Clinical Theatre.
	1.00.	Dr. Forman. Skin Demonstration.
26th	4.45.	Department of Child Health. Film Show. Hydatids "Internal". Life Cycle of Diphyllobothrium Latum. Hookworm Disease.
27th	1.00.	Professor Spurrell. Clinical Lecture. "Food and Feeding."
28th	5.00.	Professor J. M. Robson. "Chemotherapy of Tuberculosis—I."
29th	1.00.	Mr. Glover. Clinical Lecture. "Varicose Veins and Their Complications—I."
	5.00.	X-Ray Meeting. Gordon Museum.
30th	2.15.	Department of Medicine. Combined Round.
June		
3rd	12.00.	Mr. R. O. Holland. Dental Clinical Lecture. "Just Pain."

WILLIAM GULL WARD

(OLD BRIGHT ANNEXE)

A new Medical Ward to be known as "William Gull Ward" has recently been opened on the top floor of Hunt's House. This Ward was originally named Bright Annexe as it was opened as an annexe to Bright Ward, which was a cubicled Ward for paying patients before Nuffield House was opened. Bright Ward at that time occupied the premises of the present Children's Ward, that is, Caleb and Diplock. Bright Annexe has, since the war, been used as sleeping accommodation for night nurses, and more latterly as a Medical Ward. The Ward has been completely reconstructed, redecorated and re-equipped and will provide accommodation for sixteen patients on the male side and sixteen on the female side, of whom thirteen will be General Medical cases, three Endocrine cases and four Deep X-Ray Therapy cases. In addition twelve beds will be allocated to the Department of Medicine, six of which will be reserved for special Metabolic work. The Ward will contain a small Metabolic Laboratory and a special Metabolic Kitchen and the services of a Dietitian will be available.

Most of our readers will know that Sir William Gull was a distinguished Guy's physician of the 19th century.

Reviews

The Life and Work of Astley Cooper. By R. C. BROCK. Edinburgh : Livingstone. *Price* 20*s.*

As the author so rightly comments in his preface to this work on Astley Cooper, " great as his reputation is, he has not received the recognition which he really merits." The appearance of this new biography of a surgeon outstanding, not only as a Guy's man but over the whole history of the profession is, therefore, timely. The fact is that in his own Hospital his name may well be revered, but of his actual achievements or, further, of his character and personality, there is generally an appalling ignorance.

To compile this account Mr. Brock has not only undertaken much original historical research but he has also brought together various observations by other writers and assembled his data together in such a perspective as only time has allowed. This, really then, is a most commendable effort. We are enabled, thereby, to read not just of Astley Cooper the surgeon but of Astley Cooper the man as well. As a testimony to devoted application and singleness of purpose his life and work were supreme. It is perhaps a pity, in consequence, that the author of this biography has seen fit to champion the character of his study so repeatedly, rather than letting the events and the attainments speak for themselves, for a recitation of virtues may present itself to some readers as but the guise for an apologia.

To the general reader, nevertheless, this is a most attractive book and to the surgeon, in particular, it provides a fascinating story. G.

The Psychology of the Occult. By D. H. RAWCLIFFE. Ridgeway. *Price* 21*s*

The author of this book casts, as Professor Julian Huxley remarks in his foreword, a very wide net. He seeks to set out for the intelligent layman what he believes are the basic psychological explanations for virtually the entire realm of occult and mystical phenomena, from the manifestations of spiritualism and the American experiments in extra sensory perception, to the Oriental fakirs and exponents of Yoga. He also covers such diverse activities as fire walking, water divining and lychanthropy. His attitude to all these phenomena is described in the foreword as " highly critical ". Reading the book one gains the impression that it is not so much critical as deeply antagonistic. For example he says of mystical experiences : " Is there any possibility of truth in the claim that the mystic may for an instant of time, make contact with the reality behind the appearance of the phenomenal world ? The answer, unfortunately, is no." In support of this decidedly dogmatic statement he produces no evidence worth mentioning, apart from the speculation that since mystical experiences are frequently claimed by patients with psychotic illness, they are unlikely to differ when occurring in otherwise apparently normal people.

He condemns anecdote and uncontrolled speculation in the approach to the investigation of the unknown, but does not scruple to use both freely in attempting to explain many of the phenomena which have as yet remained inexplicable. Readers may or may not be impressed by his statement that the water diviner often uses his knowledge of the local contours and vegetation rather than the activities of the dowsing rod to discover the water beneath the ground ; they may also wonder how much credence they are supposed to accord to the author's unsupported guesses about the personality of Saint Paul after his conversion. Balanced scepticism is one thing ; an almost desperate desire to explain away all that is unknown in terms of the little that is already known, is another. Despite the undoubted patience, energy, and conviction of the author himself, this book emerges as a somewhat disappointing and sometimes even vulgar over-simplification of much that human reason and experiment have yet to explain. D.S.C.

The Management of the Hopeless Case. By C. J. GAVEY. London : Lewis. *Price 9s.*

This little book represents the publication of the Buckston Browne Prize Essay of the Harveian Society for 1950. Though concerned to only a limited extent with the practical details of management (and though its pharmaco-therapeutic teachings are, to say the least of them, a little strange at times) full emphasis has been given with good advantage to " the more philosophical aspects ". In this way the book has been made most thought-provoking and should be widely read if for no other reason than for the gems of quotations which have been assembled in it. What is more, to the average houseman, who has almost invariably learned very little of this subject as a student, this essay on the " hopeless " case should offer a salutary enlightenment. G.

FENCING

Winning of the Inter-Hospitals' Cup Final on Wednesday, 30th April, at St. Bartholomew's Gymnasium

This match for four foil was against St. Thomas's Hospital, who had just beaten us earlier in the season. Both teams were unchanged. They had Reynolds, the University Champion, who was sure to win all his four bouts, leaving their other three members to gain only four bouts between them, in order to win the match, as before, on hits.

Each bout consisted of the best of nine hits, and many went to the full extent. However, Guy's gradually drew ahead until, with three bouts remaining we were leading 8–5, each of our team having won twice. The next bout was lost, leaving two, the second of which was against Reynolds.

The match now depended on the first of these two, so that an almost unbearable tension developed. Miller, our foilist, started badly, and soon was losing by four hits to two, but he slowly pulled up to four all. The last hit seemed age-long in coming, but finally Miller scored to win us the match 9–7, and thus the Inter-Hospitals' Cup in the first competition since the war.

Team : I. Fuller (Captain), C. Wilkinson, A. Lush, W. Miller.

Sport and Hospital Information, etc.

GUY'S ANNUAL SPORTS

The Guy's Hospital Athletic Club's Annual Sports Day will be held this year on Saturday, May 23rd, at Honor Oak Park. They will start at 3.0 p.m. and will include such events as the Boro' Basket Race, Inter-Clubs' Relay, Children's and Novelty Races as well as the straight competitions.

GUY'S HOSPITAL ATHLETIC CLUB

Guy's versus St. Bartholomew's Hospital, held at the Imperial College of Science track on Saturday, May 3rd.

Guy's	53½ pts.
St. Bartholomew's ..	45½ pts.

Guy's versus Woolwich Polytechnic, held at Eltham, on Wednesday, May 7th.

Guy's	48 pts.
Woolwich Poly. ..	46 pts.

JOYCE GREEN HOSPITAL

The Annual Reunion and Prize-giving at Joyce Green Hospital will be held on Saturday, 28th June, 1952. Prizes will be presented at 3.0 p.m. Tea will be at 4.0 p.m. and Sports at 5.0 p.m. All those who have been associated with Joyce Green Hospital will be welcome.

CHANGE OF ADDRESS

D. J. Tibbs, M.B., B.S., F.R.C.S., 8, Claremont Place, Newcastle-upon-Tyne, 2. Tel. : Newcastle-upon-Tyne 20840.

BIRTHS

PRICE.—On 9th May, 1952, at Nuffield House, to Anne, wife of Dr. Michael Price, of 18, Blackheath Park, London, S.E.3—a daughter.

ROWAN.—On 4th March, 1952, to Joy (née Gilbert), wife of P. T. C. Rowan, M.B., B.S., of Camp Borden, R.C.A.F. Station, Ontario, Canada—a son (James Patrick).

WALLACE.—On 18th April, 1952, at Epsom, to Maureen (née Robarts), wife of John Wallace—a son.

EDS. { P.A.Z. / E.E.D.T.

GUY'S HOSPITAL GAZETTE

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PASSIM

ON Monday, May 19th, before an audience which crowded the Physiology Theatre from the gangways to the gallery, Dr. Alfred Blalock delivered the third Carbutt Memorial Lecture on " Cardiovascular Surgery ". Mr. R. C. Brock, who was in the chair, introduced Dr. Blalock and said what a great pleasure it was to have him amongst the family of Guy's again. It was in 1947 when the first exchange of surgeons between Johns Hopkins and Guy's had taken place that Dr. Blalock last visited us.

The lecture which followed was indeed of the high order that the audience had expected. Nor did it require a high degree of technical knowledge to follow the lecture which covered the whole range of Cardiovascular Surgery. Hæmopericardium, pericarditis, mitral stenosis, coronary disease, arteriovenous aneurism, coarctation, arterio-venous fistula, Fallot's tetralogy, pulmonary hypertension, arterial aneurism—all these were discussed.

The impression left with the audience was that the giant strides which were being made five years ago at Johns Hopkins in this field had continued without abatement, and it was indeed pleasant to listen to this lecture and to feel that our own hospital had not lagged behind in these advances, thanks to the work of our own cardiac team.

Since our last edition was published we have learned that Mr. A. J. McNair has been appointed Honorary Consulting Gynæcologist to St. Thomas's Hospital. We believe that the last surgeon to be on the consulting staff of both hospitals was in 1825 and we congratulate Mr. McNair on this honour which has fallen to him.

Guy's men are reminded that the Biennial Dinner will be taking place at the Connaught Rooms on Friday, 3rd October, 1952. Sir Geoffrey Marshall has kindly consented to act as chairman. A circular with full particulars will be sent out to old Guy's men at an early date. The Biennial Dinner is, of course, for all qualified Guy's men and it is hoped that the younger and more recently qualified Guy's men too will accept the welcome extended to them.

A cocktail party and dinner for old Guy's men and women resident in the south-west of England will be held at the County Hotel, Taunton, on Friday, 13th June, commencing at 7.15 p.m. It is hoped that all those who attended in October will be present and bring as many other Guy's men and their wives as possible. The anticipated cost, including cocktails and wine at dinner, will be about £1 a head. Those wishing to attend should send their names to the secretary, Dr. A. M. McCall, Orchard House, Crewkerne, Somerset, as soon as possible.

The Residents' Ball was held at the Park Lane Hotel on May 2nd and as usual was an occasion of jubilant reunion.

This year Lady Ogilvie was kind enough to act as hostess and received the guests before dinner, an undertaking which not only demanded graciousness but also a considerable stamina.

At 8.30 the parties were persuaded to leave the bars and an excellent dinner was served. Then, to the music of George Jay's dance orchestra, the ball proper began.

On a floor that was seldom over-crowded there was dancing amongst familiar and half-remembered faces. This was a party of real and spontaneous gaiety, where introducers were de trop and speeches taboo.

The gratitude of all who enjoyed the ball is due to David Pugh who, assisted by Messrs. Stoker and Baker spent harassing weeks in its preparation. They have ensured the continuing character of this event as an occasion for the happy and informal reunion of the men and women of Guy's, past and present.

"Wet Sundays"

THEIR PHARMACOLOGY, CHEMISTRY AND CURE

By H. St. H. VERTUE, M.A., D.M.

MARKING some nurses' papers a few years ago, I was much struck at first with a certain imaginative insight displayed in the answers to a question amounting to this : " Why does a baby cry ? When he does, how may you assuage him ? " One and all they set down " wet Sundays " as the first among those things that make a baby cry. How well I understood ! Yet, as the papers went through my hands, I began to ask myself questions. *Does* a baby notice whether it is Sunday or a week-day ? Is he even bothered when it is wet ? So I peered at the words more closely. Why, what they had written was not after all " wet Sundays " but " wet sundries ", and what they had *meant* was " wet napkins " !

I'm a plain-spoken fellow ;
I say what I mean ;
A spade is a spade to me,

as the admirable Robey used to sing. So I prefer it when nurses call a napkin " a napkin ", as they do now—and never, I hope, " a nappy ", betraying so not only genteelism but lack of knowledge.

Care, mad to see a man sae happy
E'en drowned himself amang the nappy.
As bees flee hame wi' lades o' treasure,
The minutes winged their way wi' pleasure ;
Kings may be blest, but Tam was glorious,
O'er all the ills o' life victorious !

" Foaming ale " is the meaning of nappy. But call a wet napkin what you will, it is a source of woe to a child, Sundays and week-days alike ; and the more often it is wet and the longer left the worse will be the crying, the reason being that urine in a short time burns the baby's skin.

See the afflicted one disrobed ! His pretty skin, once white, fine and glossy, like the perianth of the pheasant-eyed narcissus, is now tinged with a dull brick-red and is coarse to the finger and displeasing to the eye. The burn, from which he is suffering, has the shape of an equilateral triangle ; and there in the middle is the fountain of trouble, on the summit where of is conflagration : summa vaporant, as the poet says. Pass the eye now over the fiery plains and open out with the fingers the creases in his plump little groins ; and there it may be there are still cool crevices, where the scalding torrent has not rolled. Yet, sure enough, it will soak between his legs and round his loins ; so turn him over and with compunction regard the once snowy posterior, now habited in vulgar red. Vapours, rising from the vat below, will further irritate the skin of his poor belly and may even, though rarely, penetrate to his face. Then his legs may be chapt from trickles of the lava running down,

As the scoriac rivers that roll,
As the lavas that restlessly roll
Their sulphurous currents down Yaanek
In the ultimate climes of the pole.

If he be not relieved, mischief succeeds to mischief. Watery elevations appear in the sore skin, over which the sodden epithelium gives way ; and when the fluid has oozed forth, a raw and sensitive surface is left beneath : the burn, we say, has reached the second degree. At such time his linky pinky, jewel for ladies, Cyprian staff, placket-racket, or whatever other name it has beside those that the enthusiasm of Gargantua's governesses bestowed, becomes so swollen and sore that the poor wretch wails whenever he passes water. Then cries maternal folly, " I will have it cut ! " though medicine, being wiser, counsels patience. How comes it, after all, that urine wreaks such harm in contact with

an infant's skin ? If we turn aside and drink a pleasant draught from the clear waters of Organic Chemistry, the truth of this matter will be revealed to us.

From the temples high
Of man's ear and eye,
Roofed over Sculpture and Poesy,
To the murmurings
Of the unsealed springs
Where Science bedews her Dædal wings !
—*Shelley.*

We begin with the ammonium salts of the aliphatic acids, which, when heated, lose a molecule of water and form amides, from which in turn by means of more heat and a dehydrating agent a nitrile can be extracted, with further loss of a molecule of water. For example, ammonium formate, a salt, is first converted into formamide, a liquid, and then by further dehydration into prussic acid :

$$HCOONH_4 \rightarrow HCONH_2 + H_2O \rightarrow HCN + 2H_2O.$$

Prussic or hydrocyanic acid is therefore the nitrile of formic acid. Similarly, acetamide, a crystalline substance with a mousey smell, is obtained by distilling ammonium acetate, and from this again a liquid with an aromatic smell, acetonitrile, is prepared by heating with phosphorous pentoxide :

$$CH_3COONH_4 \rightarrow CH_3CONH_2 + H_2O \rightarrow CH_3CN + 2H_2O.$$

Acetonitrile is also called methyl cyanide, although it is quite unlike a cyanide in physical properties and is not poisonous. By these means, in short, a whole series of amides and nitriles can be prepared from the ammonium salts of organic acids.

Suppose now that the acid has two carboxyls, then intermediate compounds can exist. For example, from acid ammonium oxalate, when it is heated, oxamic acid is formed, $\begin{vmatrix} COOH \\ CONH_2 \end{vmatrix}$; but from neutral ammonium oxalate oxamide first results and then the gas cyanogen, the nitrile of oxalic acid :

$$\begin{vmatrix} COONH_4 \\ COONH_4 \end{vmatrix} \rightarrow \begin{vmatrix} CONH_2 \\ CONH_2 \end{vmatrix} + 2H_2O \rightarrow \begin{vmatrix} CN \\ CN \end{vmatrix} + 4H_2O.$$

Next, if ammonium *carbonate* is heated under pressure, loss of a first molecule of water leads to ammonium carbamate and of a second to the amide of carbonic acid, carbamide or urea :

$$\begin{matrix} \diagup ONH_4 \\ C = O \\ \diagdown ONH_4 \end{matrix} \rightarrow \begin{matrix} \diagup NH_2 \\ C = O \\ \diagdown ONH_4 \end{matrix} + H_2O \rightarrow \begin{matrix} \diagup NH_2 \\ C = O \\ \diagdown NH_2 \end{matrix} + 2H_2O.$$

No nitrile can be conceived in fancy as a sequel to this reaction and none in fact exists : if urea be heated further, cyanuric acid results. The carbamates are of some importance, as the ethyl ester, called " urethane ", has long been known as an anæsthetic, principally used in experiments on animals, and being destructive of white cells, is on trial as a palliative for leukæmia. But carbamide itself, or urea, is all-important for the present subject.

The reactions just described are reversible. Hydrocyanic acid in the presence of water goes back in time to ammonium formate : hence it is not a reliable means of suicide. Nitriles and amides generally react thus in the presence of water and of acids or alkalis. Urea does so but requires heat, and is then decomposed, if with alkalis into an alkaline carbonate and ammonia, if with acids into an ammonium salt and carbon dioxide. Water only will effect no change. Neither heat of the required degree, nor acids nor alkalis are present on the surface of a baby's body ; and yet ammonium carbonate, ammonia and carbon dioxide are formed there from the urea of the voided urine, and it is through the presence of this ammonia that burns are inflicted on the baby's

skin. The reason is that there is a natural agent in the skin that brings about quite easily those changes that in the laboratory require heat and powerful chemicals. That agent is an enzyme, *urease*, produced by the staphylococcus of the skin, and that organism before its identification was known as the *Micrococcus ureæ*.

Ideal conditions of warmth and moisture are provided by wet napkins for the staphylococcus, in which it can breed rapidly and generate quantities of its enzyme. Ammonium carbonate is formed first, with carbamate presumably as an intermediate substance, in the way described ; and then, from further hydrolysis, ammonia and carbon dioxide follow with extraordinary rapidity. Ammonia may be palpably present in a few minutes, and in such quantity that the child's mother may tell you that, when she changes the soiled garment, the fumes catch her breath or make her eyes run : burning of the skin is then inevitable. Moreover, since ammonia is volatile, its action on the skin will be apparent at some distance from the seat of trouble.

Water unaided, including the moisture of the air, hydrolyses ammonium carbonate, though with nothing like the rapidity that attends the presence of urease. Upon this property depends the use of smelling-salts. In many a comfortable old home there stood upon the " silver table " in the drawing-room a bottle of coloured glass, with a wide mouth, a well-fitting stopper and a handsome silver lid. Within were cubes of ammonium carbonate, over which had been poured a solution of ammonia spiced with oil of bergamot, oil of lavender, otto of roses and other dainties ; or instead of ammonium carbonate there were potassium carbonate and ammonium chloride, slowly interacting ; or there were round balls of fused potassium nitrate called " sal Prunella." Similar bottles of smaller size were carried in the muff or handbag. When a lady was a little overcome by the heat or the crowd or the excitement, she sniffed her smelling-salts, carrying through her action in a manner expressive of her delicacy and refinement. The instability of this salt is also put to use when it is given by mouth to irritate the stomach and promote a flow of mucus in the bronchi : what unpleasant things men will put into the insides of others that they would never introduce into their own !

The properties of stale urine that are due to the presence of ammonia must have been known for a long time. In the eighteenth century hogsheads of urine were a commercial source of sal ammoniac. In Middleton's rollicking comedy *A Chaste Maid in Cheapside* there is an allusion to a habit of the Puritan wives of London, which was to soak their long fingers in urine to make them white. Similarly, a writer to *The Times* once described how certain Esquimaux keep urine in their huts wherewith to wash their hands. Ammonia, in fact, is a detergent, and the exhortation to " try it in your bath " must be fairly well known. It owes this property to its power of dissolving grease, which it shares with other alkalis, soap included. The hydroxides of sodium and potassium dissolve not only grease but the horny layer of the skin as well, rapidly producing burns or deep ulcers : hence their names, caustic soda, caustic potash. Ammonia acts much more slowly, first causing redness, then blistering, never actual destruction of tissues : therefore its burns are limited to the second degree.

There is more trouble from burns due to ammonia among babies who are brought up on the milk of the cow than among those who are permitted to enjoy their heritage of breast-feeding. The reason is plain enough : there is twice as much protein in cows' milk as in human milk. The spare amino-acids of the former will be promptly de-aminated and the nitrogen will be excreted as urea, so that one may expect the content of urea in a bottle-fed baby's urine to be at least twice the amount in that of the breast-fed ; and since nine out of ten babies receiving the fashionable dried milk are overfed, it follows that their total daily excretion of urea is likely to be more than double that of a breast-fed baby of the same age. The rate of a chemical reaction is proportional to the concentration of the reacting substances, of which only the urea need be considered in this case, since the water is always in excess. If in the urine of a baby fed on cows' milk the concentration of urea is approximately double what it is in that of a baby fed on breast-milk, then in the former case double the number of molecules will be broken down in a unit of time at the beginning of the reaction, provided that the amount of enzyme be not very small. The

conclusion will be that contact with a napkin soaked in urine will do more harm in a few minutes to a bottle-fed baby than to a breast-fed ; and every-day experience bears this conclusion out.

We must admit that mothers usually know nothing of the rate of chemical reactions ; and even if they have been to Girton or Lady Margaret Hall, their mind is on other things ; but they are all aware that the sooner a wet napkin is changed the better it will be for baby ! Now any baby may suffer from the effects of ammoniacal burns, but he whose kind mother feeds him herself and is quick to change him will be the most fortunate, whereas the child of a careless woman, who has also substituted the bottle for her breast, is almost sure to become sore. A thorough washing that removes all traces of stale urine also counts for something. Further advice frequently given is to avoid soda in the wash or any agents that give an extra bleach, to use a pure soap and to eschew chemical detergents. A device often recommended is to dissolve some borax in a pail of water—three ounces to the gallon is enough, as borax is sparingly soluble in cold water—and to leave the napkins to soak in this solution for an hour before wringing them. The purpose is that, when the baby wets himself, he shall make a solution of borax from the crystals with which his napkin has been impregnated ; and so the growth of staphylococci will be arrested. But when all these details of the toilet have been faithfully followed out, the organism may still remain in possession of the field. It is likely that it can make use of the energy liberated in the chemical changes that it sets going : if it can, then it will go on gaining ground, and to oust it you must know the way.

The physician, therefore, having gone over the toilet, prescribes means to kill off the staphylococci. Once a difficult, this is now a comparatively easy easy thing to do. The material that does it best bears the peculiar name of " tyrothricin ". *Tyros*, *τῦρος*, is Greek for cheese and *thrix*, *θρίξ*, is Greek for hair. The physician will expect that there is a tyrothrix, one among the higher bacteria, germane to the leptothrix, the streptothrix and the rest, which in some way recalls cheese ; and further that from this tyrothrix an antibiotic has been prepared with the name tyrothricin, which is likely to convey an effluvium of Stilton or even of Gorgonzola. His first assumption is correct, but what the connexion with cheese may be remains an enigma. Tyrothricin has no smell, not even the " faint odour of melons " that the charwoman detected in *Three Men in a Boat*. Disappointing, very ! So it may with impunity be applied to a damsel's cheeks, if she unluckily suffer from spots. Besides being dubious in origin the word tyrothricin is also incorrectly formed, for the stem of thrix is trich- not thric- and the whole should have been *tyrotrichin*, not tyrothricin. Mr. Renée J. Dubos, the discoverer of this substance, though still leaving the connexion with cheese unexplained, thus accounts for his adoption of the name. " Tyrothrix is a generic name, first used by Duclaux, to designate sporulating aerobic bacterial species, several of which have since been found to exhibit antagonistic activity towards other organisms." The soil teems with bacteria that have similar properties and they do not suffer others to grow near them by virtue of the antibiotics which they possess. Life there must resemble Shelley's idea of Hell—or of London.

Hell is a city much like London—
A populous and a smoky city ;
There are all sorts of people undone,
And there is little or no fun done ;
Small justice shown, and still less pity.

In that world the cocci to which we are so susceptible cannot survive, because their more robust brethren do them to death with the chemicals which they produce for that very purpose. Man is now learning to make use of their means of defence for the preservation of his own health and life, employing their antibiōtics and usually miscalling them " antibiottics ".

The species upon which Dubos worked is called the *Bacillus brevis*, and he made the important discovery that it is capable of " lyzing " (his word) suspensions of staphylococci. Next he found that it had a " bactericidal effect " upon all the gram-positive organisms that he tried. The lysis of staphylococci he then regarded as a secondary effect, the real cause of death being " primary damage to the cell." His next step was to infect mice with virulent strains of pneumococci ; and he found an extract of the *B. brevis* effective there.

Further investigations led him to discover two principles which he called respectively " gramicidin " and " tyrocidin ". Gramacidin is a portmanteau word, with several meanings packed into one, and these are " lethal to organisms that take up the stain of Gram." " When I make a word do a lot of work like that," said Humpty Dumpty, " I always pay it extra." " Gramicidin," says its discoverer, " is highly specific for gram-positive organisms," so I hope he pays it extra. It is on account of its presence that tyrothricin has that power of rapidly killing staphylococci on the surface of the body that is so important in the present connexion. Mr. Dubos has also carried out an analysis and finds that his gramicidin is a polypeptide of ten amino-acids, of which two are " tryptophane residues ".

The other constituent of this extract, " tyrocidin ", present in smaller amount, has some action against gram-negative bacteria. Tyrocidin means " cheese-killer " and is a mongrel word, half Greek and half Latin, jargon in fact. In the case of modern scientific terminology is it not we, who have to use such words, that deserve a little extra for our pains ? As for this *tyros* that haunts us, may not some one for some reason have been groping in a blundering way after tyrosin, an amino-acid first found in cheese ? But why ?

The knowledge of technical procedure disclosed in these investigations fills one with respect, and the ability to see what is the next step to take in an enquiry amounts to an inspiration. Mr. Dubos is evidently a born investigator. It is remarkable that this very valuable research, now more than ten years old, was carried out quite independently of the discovery of penicillin. Fame has been capricious in her favour, for she has waited on one set of investigators, but has ignored another. Although tyrothricin cannot be given internally, as penicillin can, for it is too poisonous, and although it is in consequence rarely a saver of life, yet it possesses every advantage over penicillin for external application. Not only is it quick and efficacious in action, but it also never irritates the skin, does not breed resistant strains of bacteria and does not provoke an atopy. I first learnt of its quality from noting the practice of my colleague Dr. Moynahan, to whom I now express my indebtedness. To see that tyrothricin would be the ideal substance for preventing the ammoniacal fermentation set up by staphylococci was easy, once one had become acquainted with the drug. Two additional points of importance are brought out incidentally by the makers. Firstly they mention that it is unaffected by the presence of *urine,* secondly that it is much quicker in action than penicillin ; and when one considers how often a baby wets himself the value of speed is evident. But they do not seem to have thought of the pleased smile of the mother, for they make no recommendations about disinfecting sore babies.

Tyrothricin is extracted by alcohol from the *Bacillus brevis* and after purification is made up in a solution of alcohol and propylene glycol, a harmless solvent that aids spread over the skin. This solution is supplied at a concentration of 25 mgms. of tyrothricin to the c.c. and is dispensed with addition of distilled water to the required strength, which for killing staphylococci is that of 1 mgm. in 1 c.c., that is a dilution of one part of concentrate with twenty-four parts of water. It is extremely simple to apply, for it can either be swabbed over the parts with clean cotton-wool or, more economically, painted over them with a brush, well washed and kept handle downwards in a clean jar. The prescription will be :

Lotio Tyrothricin

℞ Liquoris Tyrothricin Conc. (Sharp & Dohme) partem unam.
Aquæ Destillatæ pts. XXIV.

Fiat lotio et signetur : Penicillo bene purgato vel gossypio puro ad locum affectum bis die applicandum.

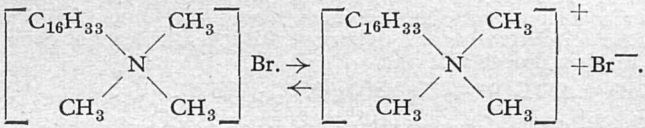
Messrs. Parke, Davies & Co., also supply the drug but at a different strength, 2 grms. of extract to 100 c.c. of alcohol, and without propylene glycol, which can be added with improvement. We may prescribe thus :

℞ Liquoris Tyrothricin Conc. (P. D. & Co.) partem unam.
Propylenæ Glycolis partes tres.
Aquæ Destillatæ partes sedecim.

Fiat lotio, etc.

Penicillin is now obsolete for external use and so are the old antiseptics. Solutions of mercuric chloride in water have had some success in the past ; but though this drug would kill many staphylococci, it is too corrosive to be applied to a burnt skin and too dangerous to be introduced into the home. Of the dyes I found the flavines without value ; but I have never tried gentian violet for this purpose, believing that it might encrust the burnt skin or even lead to bacterial growth in the deeper layers. Besides, consider a baby's buttocks and groins bedaubed with this unlovely hue ! Too like a baboon's !

The best general modern antiseptic for the skin is called " cetrimide " ; but if any one supposes that it is therefore an imide, he has lost touch with the times. Cetrimide is a quaternary ammonium compound, cetyl trimethyl ammonium bromide, a white powder, soluble in water, lowering surface tension and forming a slightly opalescent solution that froths readily. It is lethal to gram-positive cocci, is quick in action, dissolves grease, removes dirt and does not irritate the skin. The strength employed is that of one per cent. It dissociates and it is the kation that is active :



This large ion is adsorbed on to the surface of the bacterial bodies and kills them. Cetrimide would be ideal for our purpose if it were not for the awkward behaviour of colloids. If ammonia be added, the solution of cetrimide in a minute or two becomes cloudy : if soap be added, the same change can be observed in an hour or so. Besides, there is a belief, sprung from a growing knowledge of the complicated emulsifiers introduced into modern pharmacy, that a surface-active kation is not compatible with a surface-active anion, cetrimide with soap. A fine film of cetrimide on the surface of the skin would be destroyed by soap. So the baby must not be soaped ; and we must recognise that if ammonia is formed, cetrimide is forthwith inactivated. But there is a more serious objection than either of these : cetrimide dissolves the creams and ointments used to protect the baby's skin ; and we cannot afford to do without their valuable aid. It is also incompatible with the lime-water that some of them contain. On these grounds therefore I consider that tyrothricin is a remedy considerably superior.

Having settled the staphylococci the physician has next to prescribe a good cream, bearing in mind three purposes that the cream has to fulfil. Its first function is protective, to act as a barrier between the skin and the irritating substance ; its second is emollient, to soften the skin, to prevent it from cracking and to assist it to heal ; its third is to act as a vehicle, conveying a useful medicament to the scene of action. The best is the *Cremor Zinci*, as it is dispensed from the pharmacy of *Guy's Hospital*. The composition of such a cream is the fruit of experience ; and as it is a little complicated, I will take each ingredient in detail and show what it does.

Adeps Lanæ or *Lanoline* is the base. It is the grease obtained from the wool of sheep, resembles in composition the sebum of the human skin and is the most natural thing to apply. It is a mixture of waxes, mostly compounds of cholesterol with the usual fatty acids, but including also some higher alcohols, especially ceryl alcohol. It mingles well with oils and fats and it provides a particularly good means of emulsification. In consequence it is the foundation of many creams. It has also the advantage that it never becomes rancid. Alone it does not penetrate well ; but mixed with oils it has a good penetrating action. The oil used in this cream is *Arachis Oil*, obtained from pea-nuts. In taste, appearance and general properties this oil so closely resembles olive oil that it is usually dispensed for it nowadays on account of its cheapness. About five per cent. of its glycerides are esters of arachidic acid, $C_{20}H_{40}O_2$, the next above stearic in the series of fatty acids with an even number of carbon atoms ; but this slight divergence does not impair its usefulness. It is mixed with the lanoline and warmed, and oleic acid is added to the mixture. *Oleic acid* is an oily liquid with a smell of lard, generally yellow, but colourless when

perfectly pure. It is so good a penetrator that it is used as a base for alkaloids that are to be applied to the skin, cocaine for instance ; but in this prescription not enough is present to assist penetration. It is a recent addition to the cream and has been added for the purely technical reason that it improves emulsification. *Lime-water*, the next ingredient, has time out of mind been shaken up with almond oil to produce an emulsion for softening and protecting the skin. The ladies of the Salomons Centre would in the past use this mixture to preserve their complexions from the ill effects of central heating. On account of economy the arachis oil now takes the place of the almond oil, which was originally included in the present prescription : it is not inferior. Finally, *zinc oxide* is triturated with the lime-water and the warmed oils are added thereto with continuous stirring, until a cream is produced that spreads well and evenly.

Zinc oxide is a white, powdery substance that never irritates the skin. Accounts of dermatitis due to handling zinc oxide relate to impurities present in the commercial article, possibly arsenic, not to the perfectly safe pure medicament. It is almost insoluble in water, but it dissolves in the presence of sodium or potassium hydroxide to form zincates. With ammonia it dissolves also, but for a different reason. It forms with it a complex zinc-ammonium ion, the reaction probably being :

$$ZnO + 4NH_4OH \rightarrow Zn(NH_3)_4(OH)_2 + 3H_2O.$$

It will be seen that the amount of hydroxyl in ionizable combination has been halved in this reaction, and although I cannot say what the degree of ionization of zinc-ammonium hydroxide is, in all human likelihood it is considerably less than that of ammonium hydroxide. The net result will be that, when a solution of ammonia encounters zinc oxide, there is a substantial reduction in the amount of the caustic hydroxyl ion. At the same time the irritant, diffusible ammonia itself, is bound up with the zinc. This chemical behaviour of zinc makes it a valuable drug for incorporating in a cream, when the purpose is to protect the skin against the burns inflicted by ammonia ; and it is for this reason, I suppose, that zinc oxide is the favourite application to the infant, the aged and the incontinent. But few know why they make use of it ; for although the reaction that I have described can be found in text-books of chemistry, it is not mentioned in any work on medicine or pharmacology known to me.

It is noteworthy that copper behaves in just the same way as zinc, forming a cuprammonium ion, $Cu(NH_3)_4^{++}$, which has a very deep blue colour. It was the basis of Pavy's method of estimating carbohydrates, in which cuprammonium sulphate was decolorized. This was a pleasanter test to perform than Fehling's, but you had to look sharp about it, getting it completed before all the ammonia had evaporated. I suppose this is why, when the youthful Benedict walked in at the door, the elderly Pavy clambered out of the window. Pavy was a man of Guy's. (Mr. Thompson mentioned him in his reminiscences.) He was one of the first scientific physicians, and I was always told that he was a genial and comfortable person. It is good therefore to remember him.

When this cream has been duly made, it is the simplest thing to use it. Every time that the baby is changed, as soon as his toilet has been completed, this cream is applied with a liberal hand all over the affected area and gently rubbed in. So we may prescribe thus :

Cremor Zinci Oxidi, G.H. and B.P.C.

℞	Zinci Oxidi	℥ ℈ ℔
	Adipis Lanæ	℥ ℔
	Acidi Oleici	♏ $\overline{xxxiv}$
	Solutionis Calcii Hydroxidi	℥ ℈ ℔ *ss*
	Oleum Arachidis	ad ℥ $\overline{x}$

Solve et misce et fiat cremor, sicut dirigit Pharmacopœa Britannica ; sed oleum arachidis cura immiscendum pro paraffino liquido, perinde ac præscripsi ; et signetur : Totum ad locum affectum plerumque applicandum liberali manu et leniter infricandum.

Liquid paraffin is used in the official form of this preparation instead of Arachis oil because it is more procurable ; but paraffin does not cling so well as a vegetable oil, and we of Guy's consider our compound the better. The mothers, who use it, regard it with great favour.

Unless they are taught better, mothers will go to the chemist's shop and ask for " zinc and castor oil ointment." Gallons of this remedy are dispensed for use in infirmaries, hospitals for nervous diseases or any place where incontinent patients abound. It is more popular than the cream, not because it is better but because it is better known, being older. Until recently it was made up with lard, with which benzoin had been mixed to prevent it going rancid, imparting to the old ointment a rather pleasant smell. Nowadays liquid paraffin officially replaces lard, just as it replaces the vegetable oil in the official zinc cream ; but you may add compound tincture of benzoin if you wish. The formula for the ointment is as follows :

Unguentum Zinci Oxidi et Olei Ricini

℞		
	Ceræ Albæ	℥ ℈
	Adipis Lanæ	℥ ℈
	Paraffini Liquidi	℥ ℈℈
	Zinci Oxidi	℥ ℈vi
	Olei Ricini	℥ ℈iv

Even with the white wax this is a thin ointment and the amount of zinc in it is much less than in the cream. In a busy ward it can be slapped on quickly, but for a sore baby the cream is to be preferred. Mothers who have exchanged the ointment for the cream fully agree that the latter is the better.

A quaint and quite a different way of treating burns due to ammoniacal urine is to *tan* the baby, usually by means of tannic acid jelly, in imitation of a treatment of burns due to heat, now I believe out of date. We may put to the credit of the man who contrived this treatment a sound knowledge of Shakespeare.

Hamlet. How long will a man lie i' the earth ere he rot ?

First Clown. I' faith, if a' be not rotten before a'die—as we have many pocky corses now-a-days, that will scarce hold the laying bin—a' will last you some eight year or nine year : a tanner will last you nine year.

Ham. Why he more than another ?

First Clo. Why, sir, his hide is so tanned with his trade that a' will keep out water a great while ; and your water is a sore decayer of your whoreson dead body.

But though tanning the skin may keep the water out, or some of it, as a means of keeping down staphylococci it is inefficient and can therefore be of little use for an event that is liable to recur. In the long past of the human race, which must have arisen in a warm climate, no baby lay soaking in a wet napkin, for the climate demanded no clothing nor the appointments of the lair protection; but in a latitude as high as ours it is not possible to reproduce such conditions except for a brief spell during summer, when a baby could be tanned and laid on a pad without a napkin ; or it might be possible to carry out such measures in a hospital ward with an elevated temperature. Even so, only the female, with her modest little ways, would be suitable for the treatment. The habits of the male, if not exactly identical with those of Mr. Hannibal Chollop, are at least reminiscent.

" I re-quire, sir," said Hannibal, " two foot clear in a circ'lar di-rection I *have* gone ten foot, in a circ'lar di-rection, but that was for a wager."

" I hope you won it, sir," said Mark Tapley.

" Well, sir, I realised the stakes," said Chollop. " Yes, sir."

I must add that as long as a baby's skin remains healthy nothing need be applied to it. Powder is useless, and if there is starch in it, harmful ; for starch, fermented, forms glucose and glucose encourages the staphylococci to form more urease : so I learnt at the Science Club. If trouble does occur, the measures that I have described are effective, unless one is dealing with a slut.

I have been into these matters in some detail because of my belief that pharmacological teaching much resembles the labours of the fifty daughters of Danaus, who were condemned to pour water into a leaky vessel. Pharmacology is the Cinderella of Medicine. When I came to Guy's, Cambridge was in the forefront with Dixon and Oxford had made a notable start with Gunn, but here, where there actually was none, men were still devoting their attention to Materia Medica, murmuring as they walked about rhymes and alliterative sentences, such as " Senna makes the lazy Indian pass liquid stools ", in an effort to remember an interminable list of preparations necessary for examinations. Not that Materia Medica, properly pursued, is not a valuable part of pharmacology. To see, to touch, to taste, to handle is to bring a subject into the sphere of reality.

Invenies primis ab sensibus esse creatam
Notitiem veri neque sensus posse refelli.
—*Lucretius.*

(" You will find that the concept of the true is begotten of the senses at first, and that the senses cannot be gainsaid." *Cyril Bailey.*) Huxley says, " Those who read without acquiring distinct images of the things about which they read, gather no real knowledge, but conceive mere phantoms and idola." It is still pleasant and not without profit to spend a warm afternoon at Kew studying medicinal plants. Armed with a note book, one may even be mistaken for a Director. There was merit also in the old compulsion on the student to roll pills and compound mixtures, and do them up smartly too with paper, string and sealing wax. But all such lore is becoming a thing of the past. Chloromycetin appears as a capsule, penicillin as a white powder in a phial : none of us has ever *made* such things. The chemistry, once easily comprehensible, is now so formidable that a student may well be excused the time that he would have to spend in keeping abreast of it. Faced, say, with " Bis (8 quinolyloxy) α : ω pentane diethiodide ", would he conceive anything but phantoms and idola, unless he were an exceptional man ? So the subject lacks reality, students genially admit that it is too " highbrow " for them, and rarely know how to write a prescription. Meantime want of exact knowledge does not deter any man from making use of the powerful remedies that Science has put into his hands, with which he performs tricks, to the great satisfaction of his audience and himself. What really is he ?

A man of science ? Fie !
An honourable conjuror, if you will !

TEMPORAL FIT

Glimpsing the possible, he put
His hand upon the hidden door ;
And felt his electronic foot
Fitting the spaces in the floor.

Dimly discerned the void enlarge,
And heard afar the atom snap ;
He hung upon a minus charge,
Like tuppence in a dollar gap.

Frightened and bodiless his will
Essayed a kinæsthetic pace ;
Tabetic'ly he staggered 'til
He stumbled on the edge of space.

Startled to find the door behind,
Surveyed his new security :
Spanning the chasms of the mind,
A tightrope to obscurity.

P.R.M.

Fractures of the Hip

By W. V. JAMES, M.B., B.S.

INTRODUCTION

THE literature on individual aspects of fractures of the hip is extensive. This analysis is intended to survey the type of patient and his subsequent course after admission to Guy's with a fracture of the hip. Unfortunately the number of cases is small so that no definite conclusions on the results of treatment can be reached. It is hoped, however, that the analysis will reveal some facts that appear to be missing from the account of these fractures found in the average surgical textbook.

The histories of all patients for whom there are full records, admitted to Guy's Hospital between the years 1940 and 1951 have been reviewed. Many patients were only temporarily treated at Guy's and were transferred to other hospitals. Out-patient records and X-rays of some patients admitted during the war years are not available, but their hospital records give an adequate indication of the type of fracture, its course and treatment. The late complications have not in many cases been assessed for, generally speaking, patients were only followed up at Out-Patients' for three to six months, and some moved out of London during the war years.

Distribution of Cases

The length of stay in hospital of the average patient with a fractured hip is three to four months. If all hip fractures were to be treated at Guy's this would result in a serious diminution of the number of beds available for other types of patient.

The average general hospital is not designed for their treatment. Wards, physiotherapy department and X-ray unit should all be on the same floor; in the general hospital these are usually connected by a maze of corridors and lifts. Guy's Hospital has an Orthopædic unit at Orpington which is in pleasant surroundings and is well designed.

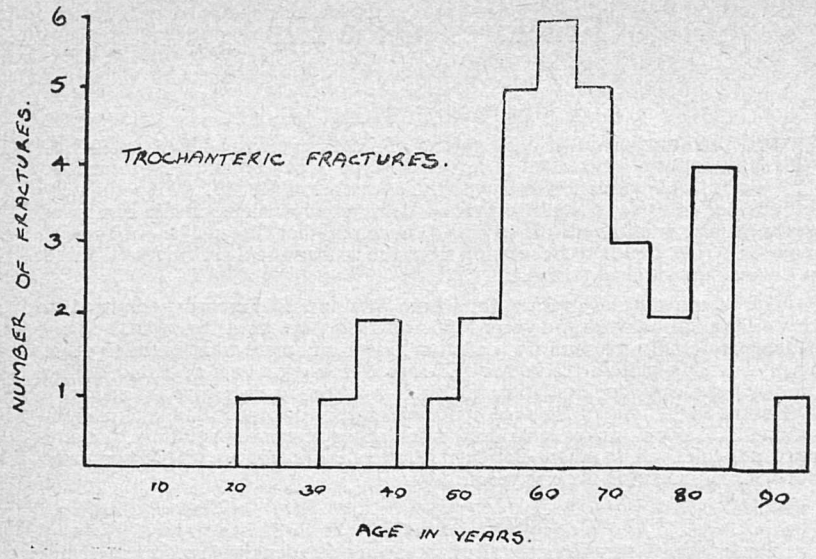
Just over half the cases (45 out of 78) admitted were treated at Guy's. A third of the cases were transferred to Orpington and the remainder, 7 in number, were treated at other hospitals connected with Guy's.

The cases retained at Guy's for treatment show some selectivity. 29 out of 42 admitted cases of fractured necks of the femur remained, as opposed to 16 out of 36 cases of trochanteric fractures. This may well be connected with the fact that the case of fractured neck of femur more frequently requires operative treatment and the patient stays in hospital for a shorter period of time.

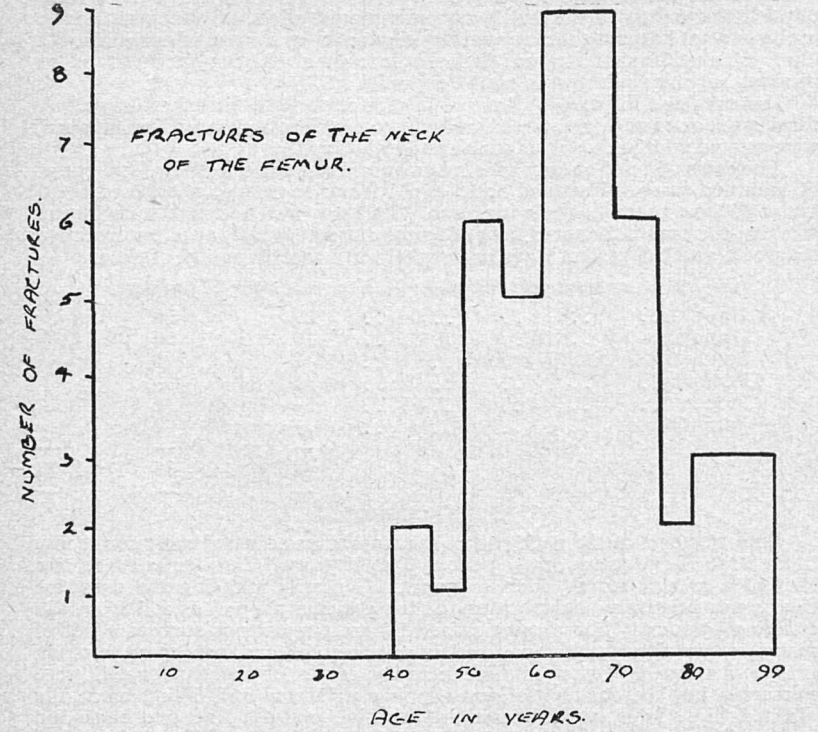
Hospital where treatment was given	*Neck of Femur*	*Trochanter*	
Guy's	29	16	
Orpington	10	16	
Southern Hospital, Dartford	2	1	
Pembury	1	–	
Sidcup	–	1	
Farnborough	–	2	
	42	36	Total 78

Age Incidence

Both fractures of the neck and of the trochanter occurred most commonly in the 50 to 75 age group, with a peak at 60 to 70 years. Trochanteric fractures showed a greater spread over the years. Generally speaking the causative injury was relatively slight. Most of the patients slipped or fell from the standing position. Those cases caused by greater violence such as a fall of many feet, resulted usually in a trochanteric fracture, and were more common in the younger age groups. The primary causes of the slip or fall were numerous but the commonest was slipping off a step and falling on to the affected hip. It is worth recording that five patients fractured their hip whilst either getting on or off a train. Of the 6 deaths that were recorded, two occurred between 60 and 65 years, and two between 75 and 80 years.



Age Incidence of Trochanteric Fracture.



Age Incidence of Fractures of Femoral Neck.

Length of Stay in Hospital

Just under half the patients treated at Guy's had operative treatment followed by early ambulation. The majority of these patients had fractures of the neck of the femur. The remainder of the cases were treated by a variety of methods, but nearly all of these were treated in bed until the fracture had united. In this small series, patients with trochanteric fractures suffered more complications and this considerably extended the average stay in hospital. The average length of stay in hospital for a patient with a fractured neck of femur was two and a half months, and with a trochanteric fracture three and a quarter months. It must be mentioned that those patients with fractures of the neck of the femur were probably ambulant after a month or so, whilst those with trochanteric fractures were confined to bed for most of their stay in hospital.

Classification of Fractures of the Hip

These fractures may be divided into fractures of the femoral neck and fractures of the trochanter. Alternatively the fractures may be divided into adduction and abduction varieties. Whether the fracture is of the adduction or abduction variety has a great bearing on the treatment. Adduction fractures are unstable for when the patient bears weight the deformity is increased. The fracture line is at such an angle that when the shaft of the femur is pulled proximally by the tone of the thigh muscles, or when weight is born on the leg, thus pressing the femoral head distally, the two fragments tend to shear across each other. It has been calculated that if a line passing through the fracture makes an angle greater than 30 degrees with the horizontal, then the fracture is unstable.

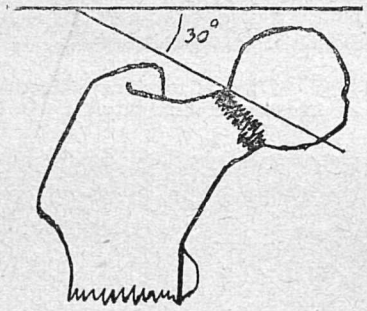


Fig. 1.—Adduction Fracture.

If the angle is less than 30 degrees then the forcible pull of the thigh muscles upwards and the body weight pressing downwards will tend to impact the two fragments, and the fracture will be stable.

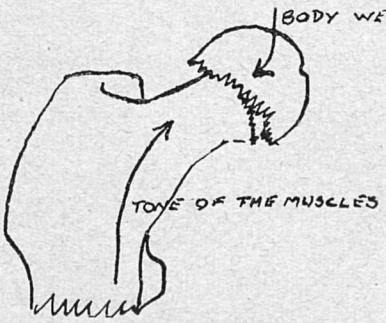


Fig. 2—Abduction Fracture.

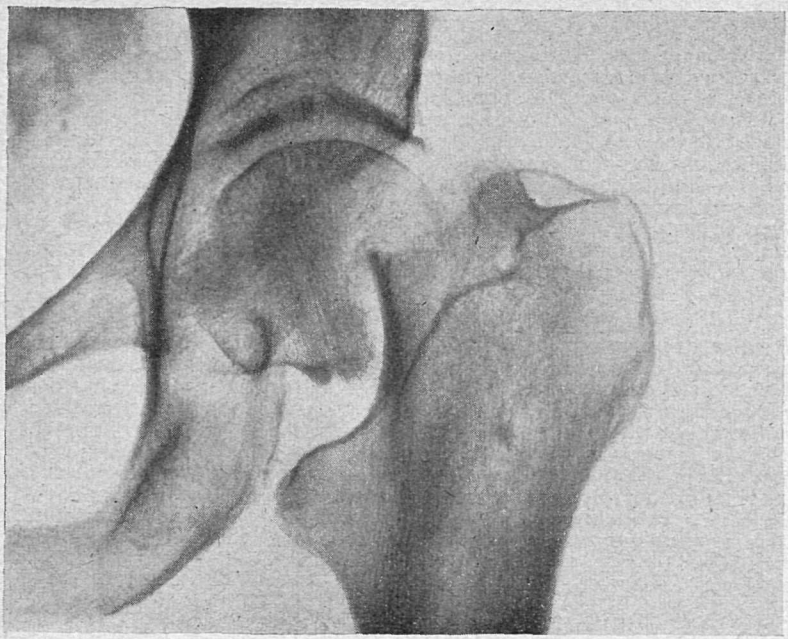


PLATE 1.—Fracture of neck of femur to show adduction deformity and consequent instability.

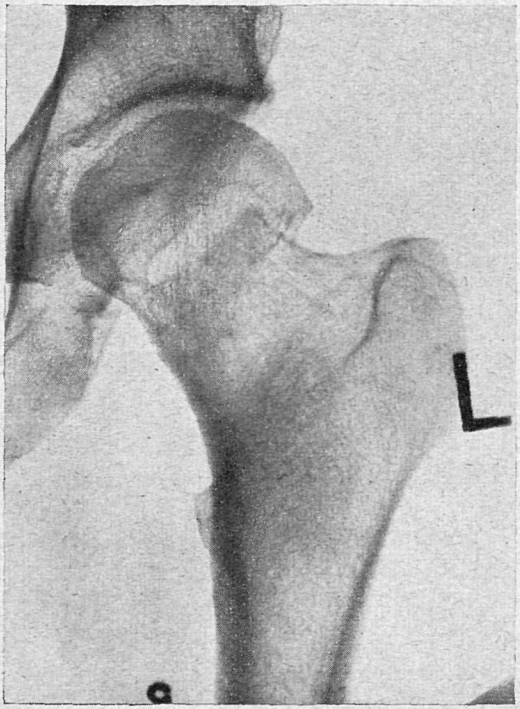


PLATE 2.

Fracture of neck of femur to show abduction deformity and consequent stability due to impaction.

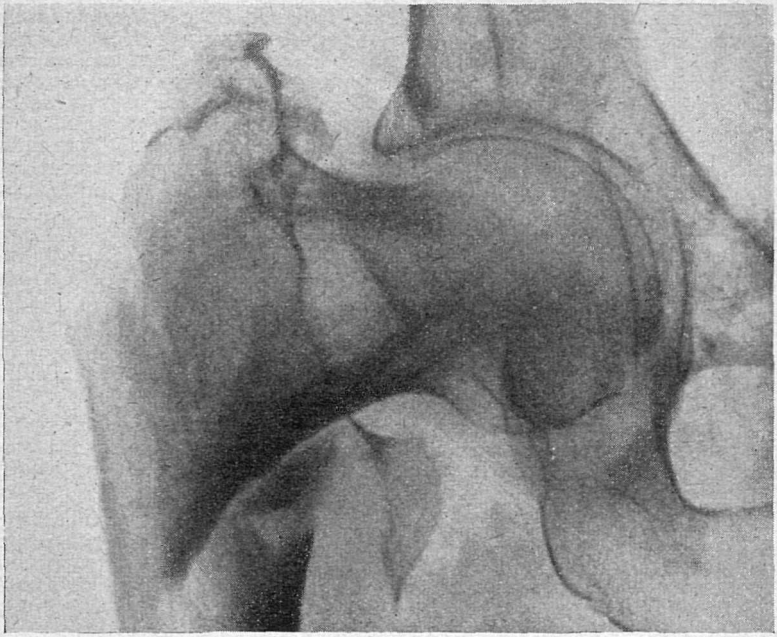


PLATE 3.—Unstable trochanteric fracture owing to poor alignment of opposing parts on medial aspect of cortical bone.

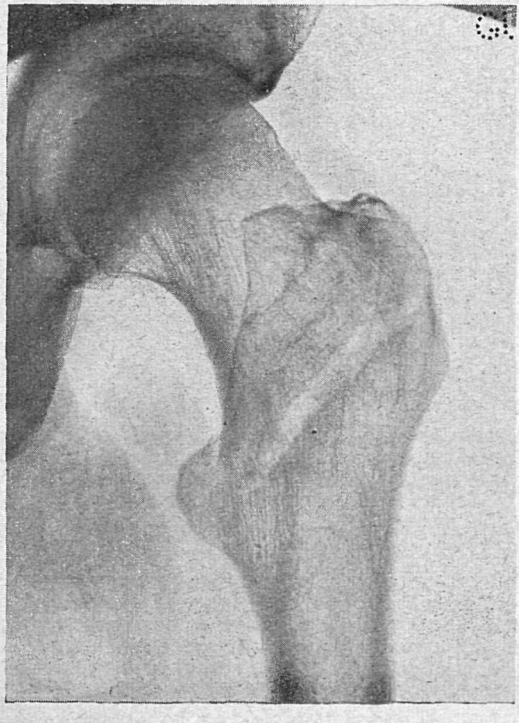


PLATE 4.

Stable trochanteric fracture due to the parts of cortical bone on the medial aspect remaining in alignment.

The anatomical classification subdivides fractures of the hip into two main groups, fractures of the neck and fractures of the trochanter. Neck fractures may be subcapital, transcervical or basal. The surgical significance of this classification is that as the fracture line nears the head a vascular necrosis of the head of the femur becomes more frequent. Trochanteric fractures are subdivided into intertrochanteric and pertrochanteric types. This classification is at times difficult for many fractures are a combination of both. The main interest lies in whether the fragment attached to the shaft is strong enough to grip a nail, or whether the line of cortical bone on the medial side of the neck and shaft is intact, for upon this the stability of the fracture rests.

Fractures of the neck	..	42	Abduction 7 (2 impacted) Adduction 35 (12 subcapital)
Trochanteric Fractures	..	36	
		78	

Methods of Treatment

The aim of fracture treatment is adequate reduction and immobilisation. Reduction in most cases was necessary, and was performed either by manipulation or traction. Immobilisation, in just under half the cases was obtained by operative methods.

Fractures of the neck of the femur. Most of the fractures admitted were of the adduction or unstable variety. In 17 out of 29 cases a Smith Peterson nail was inserted. This treatment both immobilised the fracture and converted a shearing force into a compression force. The pull of the thigh muscles instead of displacing the neck from the head, is directed along the nail thus firmly holding the neck against the head of the femur.

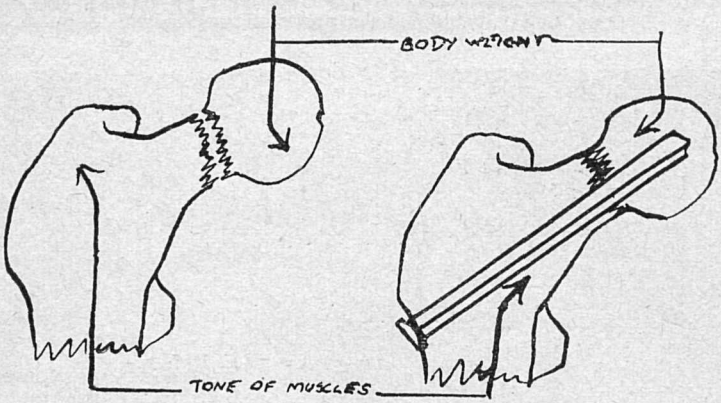


Fig. 3—Effect of Nailing.

In six cases the fracture was reduced and immobilised by means of traction upon the limb ; skeletal traction in three cases, and skin traction in three cases. Two of these are recorded as being reasonably stable, but there is no indication in the other four cases as to why this method of treatment was adopted.

Four cases of abduction fracture of the neck were treated by bed rest followed by active exercises.

There was no record of a fractured neck of femur being treated by the Whitman plaster technique. The disadvantages of prolonged immobilisation of the elderly in plaster, the difficulty of adequately immobilising the hip by plaster, and the subsequent stiffness of the knee, have apparently resulted in this method of treatment being discarded.

Trochanteric Fractures. Two thirds of these patients were treated by non-operative methods. Eight were treated by skin traction and two by skeletal traction. One patient was treated by a short period of bed rest followed by active exercises. In only one case is it recorded that the legs were abducted whilst traction was applied. Generally the Balkan frame was utilised and traction applied towards the corner of the bed. If the patient's pelvis is fixed by abducting the patient's other leg to a comparable degree, then the amount of abduction obtained is approximately twenty degrees. Usually, however, the opposite leg was not abducted and lay lengthwise in the bed. This results in the patient being able to tilt his pelvis and reduce the degree of abduction of the injured leg. One of the complications of trochanteric fractures was the development of a varus deformity so that the control of abduction of the affected limb is of some importance.

Four cases were treated operatively, two by Smith Peterson nail and two by a Capener nail plate. Those treated by a Smith Peterson nail were inter-trochanteric and those by nail plate pertrochanteric.

No cases of trochanteric fracture being treated by "Well leg" traction or immobilisation in a plaster spica were recorded.

SUMMARY

TREATMENT	NECK	TROCHANTER
Smith Peterson Nail	17	2
Nail Plate	—	2
Traction—Skeletal	3	2
Traction—Skin	3	8
Bed, Rest and Active Exercises ..	4	1
Died	2	1
TOTALS	29	16

COMPLICATIONS

Only the early complications can be reviewed. Generally speaking the follow-up period only extends over three to six months after the patient has been discharged. This short period does not detect the late complications such as the development of avascular necrosis or osteoarthritis. The common complications are :—

1. The cutting out of the nail due to inaccurate positioning.
2. Extrusion of the nail.
3. The neck of the femur falling into a varus deformity.
4. Fracture of the nail.
5. Avascular necrosis.
6. Osteoarthritis.

Of the 16 trochanteric fractures six developed complications. One patient developed hypostatic pneumonia and died eight weeks after admission. In each of the remaining cases the head of the femur developed a varus deformity. three of these cases were nailed in this position.

Seven out of 29 fractures of the neck of the femur developed complications. In four cases the Smith Peterson pin was extruded and in one case the nail cut out of the head due to inaccurate positioning. In these five cases the pin

was extracted, two cases did well and in the remaining three the head fell into varus. One case treated by skin traction fell into and united in a varus position, and one case developed avascular necrosis after nine months.

SUMMARY

The records of 78 cases of fracture of the hip admitted to Guy's during the years 1940 to 1951 have been examined and their subsequent disposal, age incidence and type of fracture recorded.

The length of stay, treatment and early complications of the 45 patients treated at Guy's have been analysed.

Attention is called to the complications of trochanteric fractures in which five out of sixteen, or just under one third of the patients developed a varus deformity of the neck of the femur.

REFERENCES

Conns, *J. Bone and Joint Surg.*, 1949, 31-B : 190, and 1951, 33-B : 192.
Smith Peterson, Cave and Vangorder, *Arch. of Surg.*, 1931, xxiii, 715.

NATIONAL FOOT HEALTH WEEK

June 16th—21st, 1952

Strong support for National Foot Health Week has been promised from Government departments, the Society of Medical Officers of Health, many national organisations, the Press, the B.B.C. and the Trade.

The focal point of the week in London will be an exhibition in the Galleries of the Army & Navy Stores, Victoria Street, S.W.1., from June 17th to June 20th. The exhibition will be opened by Miss P. Hornsby-Smith, M.P., Parliamentary Secretary to the Ministry of Health.

Emphasis will be laid especially on women's feet and footwear, on posture and the avoidance of fatigue in household and factory jobs and standing in queues. The importance of suitability in footwear will be stressed.

Branded shoes of many types will demonstrate what is meant by " multi-fitting " shoes ; this section will include children's and adolescent's shoes.

There will be a stand dealing with the functions of the chiropodist. Alongside an exhibit of historic footwear there will be examples showing progress and developments in this century. A section showing how shoes are made will feature the making of lasts as well as materials and the stages of manufacture. There will be shoe fitting demonstrations organised with the collaboration of Messrs. A. Jones & Sons (Bootmakers) Ltd., and Messrs. Daniel Neal & Sons Ltd.

The programme of popular lectures taking place at the Army and Navy Stores will include :—

" The Dancer's Foot "—Tuesday, 17th June, 11 a.m.

Speaker : Mr. T. T. Stamm, F.R.C.S.

Chair : Miss Ninette de Valois, D.B.E.

" Women at Work—The Foot Problem "—Tuesday, 17th June, 3.15 p.m.

Speakers: Dr. F. M. Oldershaw and Dr. R. Piper (Industrial Medical Officers).

Chair : Miss Elaine Burton, M.P.

" The Teen-ager's Foot "—Wednesday, 18th June, 11 a.m.

Speaker : Dr. Margaret Emslie.

Chair : Dr. A. F. Alford (Ministry of Education).

" Foot Troubles in Middle Age "—Thursday, 19th June, 11 a.m.

Speaker : Mr. S. L. Higgs, F.R.C.S. (St. Bartholomew's Hospital).

Chair : The Rt. Hon. The Lord Amulree.

There will be an open forum on Wednesday afternoon, June 18th, and on Friday afternoon, June 20th, with a team of experts from the professional groups and the trade to answer questions. The Ministry of Health film " Your Children Walking " will be shown daily.

Correspondence

Passim

SIR,—Your editorial in the current number of the *Gazette* prompts me to write this letter. I have some 16 years in an industrial practice in this university town with a pretty good medical school.

I am roused to anger quite often when patients and their relatives tell me they cannot get any contact with the consultant who has charge of their fate. The great man examines them, discusses their cases within earshot so that they often catch snatches of the clinical lecture having no direct bearing on their own malady, but on to differential diagnosis, and these snatches being misinterpreted give rise to the most alarming diagnosis.

As a ward clerk and as a dresser I always took it as natural to spend some time explaining to my patients what the great man had thought—what was the outlook, and so on. But nowadays the patient seems to be a bed number and not a personality and neither the house surgeon or anyone else seems to have time to comfort the poor patient lying in the bed. The complaint is too frequent and worded too similarly for it to be tossed aside because many who make the complaint are full of gratitude for what they have received.

Undoubtedly something should be done and someone appointed to see to it that relatives are not just told, "Oh—she's doing very well" or "There's nothing to report yet."

Mental hospitals seem to be even worse, as relatives may visit for months and never see the doctor. I spent five years in mental hospital work and in the hospital I worked in one medical officer had to be on duty to answer any questions any relatives wanted to ask—and to answer them courteously and fully.

A letter to the Superintendent would obtain a meeting with himself if any matter of financial or family moment needed to be cleared up.

Professor Titmuss has drawn attention to a very real blemish in the system but I cannot see why he attributes it to a desire to "maintain authority". To me it is a symptom of the increasing demands made on us all, so that to meet them one cannot stop and chat amicably with the patient as one used to. This applies from the consultant to the general practitioner.

Yours, etc.,

61, Cotham Brow,
Bristol, 6.

L. L. FAULL.

June **ACADEMIC**

		Exhibition. Surgical Department. "Carcinoma of the Breast."
3rd	12.00.	Mr. R. O. Holland. Dental Clinical Lecture. "Just Pain."
4th	5.00.	Professor J. M. Robson. "*Chemotherapy of Tuberculosis—II.*"
5th	1.00.	Mr. Glover. Clinical Lecture. "Varicose Veins and their Complications (2)."
	5.00.	X-Ray Meeting. Gordon Museum.
6th	1.00.	Dr. Holling. Clinical Lecture. "Anoxia in Clinical Medicine."
	2.15.	Department of Medicine. Combined Round.
7th	10.00.	Dr. Forman. Skin Demonstration.
9th	1.00.	Mr. Atkins. Clinical Lecture. "Peripheral Vascular Disease."
	5.00.	Film. Clinical Theatre. "The Technique of the Radical Abdomino-Perineal (Miles) Operation."
10th	12.00.	Mr. J. W. Mansie. Dental Lecture. "Fractures."
	1.00.	Professor Rushton. Clinical Lecture.
11th	4.45.	Science Club Annual General Meeting. Miss S. Treadgold and Mr. C. E. Engel. "Recent Advances in Medical Illustration." Staff Common Room. (Tea, 4.30 p.m.)
12th	12.00.	Mr. L. Willmore. Dental Lecture. "Concepts of Speech Therapy." Illustrated by magnetic tape recordings.
	1.00.	Mr. Grant Massie. Clinical Lecture.
	5.00.	X-Ray Meeting. Gordon Museum.
	5.00.	Clinical Theatre. Demonstration of Neurosurgical cases by Mr. Murray Falconer.
13th	10.00.	Clinical Theatre. Surgical Departmental Round by Mr. Rodney Smith.
	1.00.	Professor F. F. Schwentker. Clinical Lecture. "The Rôle of Streptococci in Rheumatic Fever Prevention."
	2.15.	Department of Medicine. Combined Round.
16th	1.00.	Dr. Hutton. Clinical Lecture. "Anæsthesia in the Dental Chair."

Review

Textbook of Medicine. Edited by SIR JOHN CONYBEARE and W. N. MANN. Tenth edition. Livingstone. 900 pages. *Price* 37*s.* 6*d.*

This is the third post-war edition of Sir John Conybeare's world-famous textbook of medicine, the second to be produced in the larger size of Messrs. Livingstone's other textbooks and the first in which Dr. Mann appears as co-editor. Many of the chapters have been revised or rewritten but the book remains of the same length as the last edition. The slight increase in price, made necessary by the rising costs which are universal in the book trade, compares well with the increased price of books in general.

There is now really no competitor with this textbook for the undergraduate. It covers fully yet concisely the whole field of medicine as required by the qualifying examinations and it is difficult to see how any student can succeed without it. It is the only book on the subject that he need buy, and from it he can proceed direct to further reading in the specialist books and the journals, to be obtained from the library. A textbook of medicine ought to be short and concise as this is for thus it does not usurp the function of the more detailed sources of information. This requires the highest standard of well-balanced writing on the part of the authors and of selection on the part of the editors, and this standard has been reached in all sections of this book.

It is also, in this reviewer's submission, the basis on which to found one's postgraduate reading, as for the M.R.C.P. In the course of several years' coaching for the latter examination, it was his practice each time the examination was held, to check by reference to this textbook how fully the papers could have been answered by means of a knowledge of it alone. It was seldom that he was unable to find an adequate basis for answering a question. And in the *viva voce* part of the examination, it was rare indeed for a candidate to be asked a question the answer to which was not to be found here.

The useful addenda at the front- and end-papers, of physiological normals and tables of equivalent weights and measures, exist as before ; and there is a table giving the names of official preparations of drugs which, at far greater cost, are usually known by their proprietary names.

There is a new appendix which summarises the present use of the antibiotic drugs. W.D.B.

Sport

CRICKET

Guy's 1st XI *v.* Wallington C.C.

Away. Result—Draw

Guy's 277–8 dec. Wallington 217–8

Guy's

D. E. Blake, c. Ryde, b. Bale	111
N. R. Cooke, c. Piercy, b. Wale	31
W. A. Cahill, b. Wale	0
M. Williams, c. Piercy, b. Griggs	50
W. Whitrow, c. Griggs, b. Bale	6
M. Willis c. Ready, b. Griggs	17
H. R. Bissoon Dath, b. Borrett	18
E. R. Gibbons, not out	20
J. B. Riley, b. Bale	2
D. Atkinson, not out	11
F. Trist, did not bat	
Extras	11
8 wkts. dec.	277

Bowling : Atkinson, 12-1-36-1 ; Riley, 4-1-17-0 ; Cooke, 8-4-10-2 ; Williams, 1-0-17-0 ; Trist, 18-3-47-2 ; Bissoon Dath, 27-1-74-3 ; Willis, 5-0-14-0.

Guy's 1st XI *v.* Wanderers

At Home. Result—Lost

Guy's 76. Wanderers 147

Guy's

D. E. Blake, b. Brown	29
N. R. Cooke, c. Williams, b. Palmer	0
D. M. Lipington, b. Turton	17
E. R. Gibbons, b. Turton	5
D. Atkinson, b. Brown	16
W. J. Howells, l.b.w., b. Brown	3
G. Rosaire, l.b.w., b. Turton	0
M. Willis, st. Bassett, b. Turton	0
A. Cahill, b. Brown	2
T. Smith, st. Bassett, b. Turton	2
W. Tweed, not out	0
Extras	2
	76

Bowling : Rosaire, 11-2-24-3 ; Tweed, 6-2-16-0 ; Willis, 8-1-31-2 ; Howells, 4-0-14-1; Smith, 9-4-13-2 ; Atkinson, 6-2-18-0 ; Cooke, 5-1-12-1 ; Gibbons, 2-0-15-0.

House Appointments

1st JUNE, 1952

ASSISTANT HOUSE SURGEONS.

To Mr. Slesinger : Mr. G. A. Marin.
„ Mr. Wass : Mr. J. A. Smith
„ Mr. Blackburn : Miss J. C. M. Heylen.
„ Mr. Lawrie : Mr. B. L. Mallett.
„ Mr. Glover : Mr. A. V. Large.

Appointed for six months, the first three months as A.H.S.

OUT-PATIENT OFFICERS.

Mr. A. P. Blower.
Mr. A. Fairley.
Miss E. Morrison.
Mr. E. D. Sonnenfeld.
} 3 *months.*

HOUSE SURGEONS.

To Sir Heneage Ogilvie: Mr. G. M. Karpusheff. 6 *months.*
„ Mr. Massie : Mr. J. G. Hamilton. 3 *months.*
„ Mr. Eckhoff : Mr. J. Palmer. 6 *months.*
„ Mr. Atkins : Mr. E. F. Soothill. 3 *months.*

HOUSE PHYSICIANS.

To Sir John Conybeare and Dr. Hardwick: Mr. A. S. Harris. Mr. P. A. Zorab. 3 *months.*
„ Dr. Douthwaite and Dr. Mann : Mr. W. G. Davies Mr. P. V. Skinner. 3 *months.*
„ Dr. Boland and Dr. Baker and Dr. MacLean : Mr. E. J. Rolls. Mr. P. F. P. Lansdown. 6 *months.*
„ Dr. Hampson and Dr. Kauntze : Mr. G. B. Davison. Mr. D. C. Wilkins. 6 *months.*

RESIDENT OBSTETRICIANS.

1. 1.52—30. 6.52 : Mr. W. M. E. Tweed.
1. 3.52—31. 8.52 : Mr. D. R. Pugh.
1. 5.52—31.10.52 : Mr. R. D. Allen
1. 7.52—31.12.52 : Mr. R. G. Nicholson.

OPHTHALMIC HOUSE SURGEON.

(Non-resident)

Mr. J. H. Bailey. 3 *months.*

THROAT AND EAR HOUSE SURGEON.

Mr. H. S. Reeve. 3 *months.*

DERMATOLOGICAL HOUSE PHYSICIAN.

(Non-resident)

Mr. G. A. E. Baker. 6 *months.*

NEUROLOGICAL HOUSE PHYSICIAN.

Mr. I. Kelsey Fry. 3 *months.*

GENITO-URINARY HOUSE SURGEON.

Mr. J. M. Holmes. 3 *months.*

CHILDREN'S HOUSE PHYSICIANS.

Mr. G. H. Fisch. 3 *months.*
Mr. C. F. Bolton. 3 *months.*

HOUSE SURGEON TO THE THORACIC UNIT.

Mr. I. H. Kerr. 6 *months.*

HOUSE SURGEON TO THE NEURO-SURGICAL UNIT.

5.5.52—4.11.52 : Mr. J. D. Carroll.

RESIDENT JUNIOR CLINICAL PATHOLOGISTS.

1.4.52—30.9.52 : Mr. D. B. Murray.
17.3.52—30.9.52 : Mr. P. O'Gorman.

HOUSE PHYSICIANS IN THE YORK CLINIC.

1.3.52—31. 8.52 : Mr. M. S. Compton.
1.6.52—30.11.52 : Mr. P. M. J. O'Brien.

RESIDENT ANÆSTHETISTS.

20. 3.52—19. 9.52 : Mr. P. S. B. Russell.
12. 5.52—11.11.52 : Mr. K. A. Baker.

R.M.O's., NUFFIELD HOUSE.

18. 3.52—17. 9.52 Mr. M. C. Gilbert.
8. 4.52— 7.10.52 : Mr. H. M. Baird.

ORPINGTON HOSPITAL.

House Surgeon.
Mr. J. E. Scriven.

Orthopædic House Surgeons.
Mr. P. K. M. Barrett.
Mr. E. A. Murray.

Throat and Ear House Surgeon.
Mr. R. D. France.

QUEEN MARY'S HOSPITAL, SIDCUP.

House Surgeon.
Mr. R. W. Brotherwood.

JOYCE GREEN HOSPITAL, DARTFORD

House Surgeon.

PEMBURY HOSPITAL.

House Surgeon.
Mr. C. H. W. Warne.

Orthopædic House Surgeon.
1 vacancy re-advertised.

Hospital Information, etc.

GUY'S HOSPITAL AND MEDICAL SCHOOL

Applications are invited for the following appointments to the Junior Staff for the session 1952–53 :—

Medical Registrars	*4
Surgical Registrars	*4
Obstetric Registrars	*2
Genito-Urinary Registrar	1
Orthopædic Registrars	*2
Chief Assistant, Department of Anæsthetics	1
Anæsthetic Registrar	1
Hæmatological Registrar	1
Neurosurgical Registrar	1
Chief Assistant, Neurological Department	1
Neurological Registrar	1
Assistant to the Director of York Clinic	1
Registrars to Department of Psychological Medicine (W/T)	*3
Registrars to Department of Psychological Medicine (P/T)	2
Registrar to B.M.R. and Endocrine Department (P/T)	1
Radiotherapy Registrar	1
Chief Assistant to Ear, Nose and Throat Department	*1
Registrar to Ear, Nose and Throat Department	1
Registrars, Department of Diagnostic Radiology	*1
Registrars, Department of Physical Medicine	*2
Thoracic Surgical Registrar	1
Dermatological Registrar (W/T)	1
Dermatological Registrar (P/T)	1
Pædiatric Registrar	1
Ophthalmological Registrars (P/T)	4
Registrars, V.D. Department (P/T) (1 Female Annexe ; 1 Male Annexe)	*2
Junior Medical Registrars	3
Registrar to Evelina Hospital	1
Chief Assistant, Department of Clinical Pathology	*1
Registrars, Department of Clinical Pathology (One with duties at the Evelina Hospital)	4
Anatomy Department { Junior Lecturers (W/T)	4
Anatomy Department { Junior Lecturer (P/T)	1
Physiology Department—Junior Lecturers	2
Morbid Anatomy & Histology Department—Junior Lecturers	2
Junior Lecturer and Gull Student	1
Bacteriology Department—Junior Lecturers	2
Chemical Pathology Department—Junior Lecturers	2
Assistant to the Director of the Department of Medicine	1
Junior Assistant (Research) to the Director of the Department of Medicine to work in connection with the Department of Pharmacology in therapeutic research	1
Tutor in charge of the Preliminary Clinical Period Class	1
Junior Assistant to the Director of the Department of Surgery	1
Assistant to the Director of the Department of Obstetrics (P/T)	1
Assistant to the Director of the Student Health Service	1

* One of these posts will be under the exchange scheme for Senior Registrars, with duties at Guy's for the session 1952–53.

EXCHANGE SCHEME

Applications are invited for the following vacancies for **Senior Registrars.** The holders of these appointments will be expected to spend a minimum of one, and not more than two, years in a Regional Hospital as indicated on an exchange basis during a four-year tenure of the post. Preference will be given to applicants who have held an appointment as Registrar in the specialty at a Teaching Hospital and the appointments will be subject to annual review.

General Medicine, Bromley & Farnborough Group	1
General Surgery, Bermondsey & Southwark Group	1
Diagnostic Radiology, Bromley & Farnborough Group	1
Physical Medicine, Bromley & Farnborough Group	1
Pathology, Lewisham Group	1
Psychological Medicine, Bexley Group	1
Orthopædic Surgery, Medway & Gravesend Group	1
E.N.T. Surgery, Bromley & Farnborough Group	1
Obstetrics, Bromley & Farnborough Group	1
Venereology, Seamen's Group	1

Note.—The posts in Diagnostic Radiology and Physical Medicine will be held simultaneously at Guy's and Bromley and the post in Venereology simultaneously at Guy's and Seamen's.

SENIOR REGISTRARS

The following posts are available to **Senior Registrars** at the Hospitals mentioned for one year, with the exception of S.E. Kent Group which will be for two years. These posts are not in the exchange but the holders may be eligible to apply for one year as Senior Registrar at Guy's on completion of this appointment.

General Medicine, Bromley & Farnborough Group.
Psychological Medicine, Bexley Group.
Pathology, Lewisham Group.
Diagnostic Radiology, Bromley & Farnborough Group.
Physical Medicine, Bromley & Farnborough Group.
General Surgery, Bermondsey & Southwark Group.
General Surgery, S.E. Kent Group.
Obstetrics, Bromley & Farnborough Group.

Forms of application, obtainable from the Superintendent's Office and the Medical School Office, should be lodged in one of these offices not later than **17th June, 1952.** All appointments to start on **1st October, 1952.**

APPOINTMENTS VACANT GUY'S HOSPITAL

The Board of Governors of Guy's Hospital invite applications from registered **Dental Practitioners** for the appointment of full-time **Assistant to the Visiting Dental Surgeons** *to commence duties on* **1st October, 1952.**

The post will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1, to whom applications should be sent not later than **Tuesday, 17th June, 1952.**

GUY'S HOSPITAL DENTAL SCHOOL

Applications are invited from registered **Dental Practitioners** for the appointment of half-time **Demonstrator in Special Anatomy and Histology** to commence duties on **1st October, 1952.** This appointment may be held in conjunction with a part-time lectureship, teaching Dental Students, in the Anatomy Department.

Forms of application are obtainable from the Dean, Guy's Hospital Dental School, London, S.E.1, to whom applications should be sent not later than **Tuesday, 17th June, 1952.**

Applications are invited from registered **Dental Practitioners** for the appointment of full-time **Lecturer in the Department of Dental Medicine.**

The duties will be part-time teaching, part-time research. Salary range £900–£1,100 plus superannuation and family allowance.

Forms of application are obtainable from the Dean, Guy's Hospital Medical School, London, S.E.1, to whom applications should be sent not later than **17th June, 1952.**

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL

Southwark Bridge Road, London, S.E.1

Applications are invited for the post of **House Surgeon,** vacant on the 1st July, 1952 (second or third post). The duty for the first two months will be in the Casualty Out-Patient's Department. The post is tenable for a period of six months and is recognised for the D.C.H. Salary at the rate of £400 or £450 a year, according to experience, with a deduction at the rate of £100 a year for residential emoluments.

Applications, stating age, nationality, qualifications (with dates), and accompanied by copies of three recent testimonials, should reach the Hospital Secretary by the first post on **Thursday, 12th June, 1952.**

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Second Examination

April, 1952

B. H. Allen
F. W. Autscherl
W. A. B. Cahill
J. C. Cranfield
N. J. S. Hills
W. J. Howells
F. Summers
J. P. Warren

ROYAL COLLEGE OF PHYSICIANS OF LONDON

F.R.C.P.

R. C. MacKeith

SOCIETY OF APOTHECARIES OF LONDON

Final Examination

April, 1952

Surgery

J. H. S. Battey
*J. H. Kerr

Medicine

V. R. Jones

Midwifery

*J. H. Kerr

*Has completed the examination.

APPOINTMENT

Dr. G. Blake Palmer appointed Medical Superintendent, Seacliff Hospital, Dungoin, New Zealand.

CHANGE OF ADDRESS

Austin Brown, F.R.C.S., 95, Plaistow Lane, Bromley, Kent. Tel. : Ravensbourne 0326.

HOCKEY CLUB

The Annual General Meeting of the Hockey Club will be held in the Physiology Theatre on Tuesday next, June 10th, at 1 p.m.

PAPERS BY GUY'S MEN

Cardew, Peter. The Use of Electronic Flash in Medical Photography. *Med. biol. illus.*, 1952, **2,** 27.

Chapman, Harold. Treatment of Pre-normal Occlusion in Very Young and Older Children. *Brit. dent. J.*, 1952, **92,** 241.

Dowling, G. B., and another. Anomalies of Pigmentation. *Practitioner*, 1952, **168,** 453.

Houghton, L. Wynn. Calcium Carbonate in the Gall-Bladder. *Brit. J. Surg.*, 1952, **39,** 336.

Houston, J. C., and Thompson, R. H. S. The Diagnostic Value of Serum Iron Studies in Hæmochromatosis : Observations on Seven Patients. *Quart. J. Med.*, 1952, **21,** 215.

McCall, A. M. The Atom Strikes. *Publ. Hlth. Lond.*, 1952, **65,** 132.

Macintosh, R. R. The Significance of Fits in Eclampsia. *J. Obstet. Gynæc. Brit. Emp.*, 1952, **59,** 197.

McKeown, Thomas, and another. The Period of Gestation. *Brit. med. J.*, 1952, i, 938.

Rewell, R. E. Fundamentals of Pathology as Illustrated in Captive Animals. *Postgrad. med. J.*, 1952, **11,** 126.

BIRTHS

BODMAN.—On 23rd April, 1952, at Spruce Grove, Alberta, Canada, to Doreen (née Thornton), wife of James Bodman—a son (David), a brother for Jane.

DALTON.—On 25th April, 1952, at the Maternity Home, Aberystwyth, to Kathleen, wife of T. P. Dalton, L.D.S., R.C.S., Eng.—a sister for Annette.

DIXON.—On 17th May, 1952, at Southlands Hospital, Shoreham-by-Sea, Sussex, to Judith Ann, wife of John Dixon, L.D.S., R.C.S., Eng.—a son (Christopher).

HANDOLL.—On 12th May, 1952, at Guy's Hospital, to Freda (née Watson, S.R.N.), wife of Maurice H. Handoll, M.B., B.S.—a sister for Kay (Josephine).

PRITCHARD.—On 12th May, 1952, at Guy's Hospital, to Betty (née McCann, S.R.N.), wife of Kenneth G. B. Pritchard, L.D.S., R.C.S., Eng.—a daughter (Susan Dorothy).

WATSON.—On 1st May, 1952, at Guy's Hospital, to Winifred (née Moncrieff), wife of William Humphreys Watson, M.R.C.S., L.R.C.P., Lond.—a son (Peter William).

MARRIAGES

BROWN—SAXON.—On 24th May, 1952, at Chester, Austin Brown, F.R.C.S., to Catherine Saxon, S.R.N.

DEATHS

CUTLER.—On 28th April, 1952, Frederick John Cutler, M.R.C.S., L.R.C.P., Lond., of Dudley Road, Hastings, Sussex.

WATSON.—On 9th May, 1952, Clifford Toulson Watson, L.D.S., R.C.S., Eng., M.D.(Sheffield), of Glossop Road, Sheffield.

EDS. { P.A.Z. / E.E.D.T.

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GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1667 14*th June* 1952 *One Shilling*

PASSIM

CHEAP FOR QUICK SALE

SURPRISING sensations may be aroused by so ordinary an occupation as clearing out a cupboard. To some this brings a fierce delight which a determined air, tightened lips, and the monosyllabic exclamations accompanying such an operation all sufficiently betray. The technique is simple. Perhaps it is seen to perfection when the cupboard is one of that infinite variety known to every household as a " glory hole ". From a calculated start at the top where shelves are reached on tip-toe and with difficulty, the kathartic tide sweeps without delay to the fastnesses below, while three generalised, though quite distinct, piles of articles designated " Rubbish ", " Wanted ", and " For Sale ", rise steadily in the background. The stables of Augeas never received more thorough attention. There is no suggestion of sitting down to the job, and the " Wanted " pile is pathetically the smallest of the three.

More commonly the scene is different. The start may, indeed, be as brisk, and the air of determination no less apparent, but as the process goes on movements become slower ; books, items of clothing, sports gear, and letters (for these are the real hazard) are more lingeringly scrutinised, until, seated upon the floor, surrounded by a conglomeration which bears no resemblance to the original tripartite distinction, we glance furtively—and then again more boldly—at the clock. This is the moment of crisis, for it heralds the end of the whole procedure. With inward relief the accumulated mass is swiftly compressed behind a protesting door, while a handful of articles dutifully (if reluctantly) carried away, readily salves our conscience for months to come.

Melancholy moral disasters such as this are called to mind by advertisements which appear from time to time in the daily press, or behind variegated glass doors enclosing the notice-boards which flank tobacconists' shops in the smaller thoroughfares of every town. All kinds of personal property may find publicity here—from houses to hats : from coats to cars—in advertisements worded with innocent facility. Almost without exception one sees, sooner or later, that mysterious and illogical phrase, " Cheap for quick sale."

The words conjure up, in a moment, the feeling of reluctance which is aroused by withdrawing, almost with closed eyes, some precious item from the " glory hole " of the past. One shares something of the reservation still, perhaps, lurking unconsciously in an unknown owner's mind. We know the sharp feeling of decision. If our property is not disposed of with speed we will retain it with relief. Sell quickly, or some good excuse will assuredly be discovered for not selling at all. These four short words indeed proclaim an intention to make lengthy negotiation difficult. " Cheap for quick sale " leads by easy stages to " Dearer for slower sale ", while " Impossibly expensive for protracted purchase " might, at this point, imply no obvious *non-sequitur*. The fact that all this is contrary to ordinary experience means less than nothing. We know perfectly well that somebody else's articles left unsold, tend, in time, to be " slashed " in price, and more often than not ultimately " given away " by the desperate vendor.

But *our* property is different. Minute by minute its value increases wildly as the full import of impending loss becomes plain. No bid can now be high enough for a treasure which immediate lack of successful disposal has, providentially, retained in our hands. Honour is satisfied. We cancel our offer—in a frenzy of fear meanwhile, lest some serious purchaser has appeared to tempt us away from our design. We return to our cupboard. Once more the wanderer comes home to its familiar shelves, to rest behind those bulging doors as an indispensible reminder of some nearly forgotten day, never, we swear, to be jeopardised again.

On the occasion of her retirement from the Hospital there are many who we feel would like to join us in sending good wishes to Sister Bird. Her cheerful presence in the Out-Patient Department will be sadly missed and missed, too, by the many children who were invited each Christmas to the party which she organised. It is pleasant to know that she will now have time to enjoy the many outside interests which she has cultivated and which the running of a highly complex department left her so little opportunity to enjoy.

Dr. John Gordon has been appointed Consultant Anæsthetist to the Rowley Bristol Orthopædic Hospital at Pyrford. Mr. Hujohn Ripman has become Consultant Obstetrician and Gynæcologist in the East Suffolk and Ipswich Area, and Mr. W. A. Vale has been appointed to serve on the Conservation Materials Committee of the British Standards Institution. We congratulate these Guy's men on their appointments.

We regret to record the death on 2nd June, 1952, of Surgeon-Lieutenant Leon Alexander Rosen, (D.) R.N., B.D.S.

The Fison Memorial Lecture

PROFESSOR JAMES GRAY, C.B.E., M.C., Sc.D., F.R.S., delivered the Fison Memorial Lecture on Friday May 30th, in the Physiology Theatre. The chair was taken by the Rt. Hon. The Earl of Halifax, K.G., O.M. Guy's were indeed fortunate that the services of so able a lecturer and so distinguished a chairman had been obtained and a warm welcome was given to them by the many students and members of the staff who were present. The subject of the Lecture was " The Machinery of Life."

In introducing the Lecturer, Lord Halifax gave a brief outline of the life of Dr. Fison, as a memorial to whom these Lectures were instituted by his friends. He then spoke of the interest which Dr. Fison had had in that field where Science meets Philosophy.

Professor Gray, whose lecturing and diction were a model for us all, began by likening the approach of the Scientist towards life to the approach of an Engineer towards a machine. Both, he said, were subject to the same physical laws—a point he proceeded to illustrate most beautifully and simply by reference to a small model and by lantern slides. He then turned to the mechanical structure of the body and again demonstrated the similarity between its working and the working of a machine. The short film used to illustrate this point by showing the method of movement of various small animals was excellent. Professor Gray then turned to the evolutional theories of Darwin. These, he said, attempted to account for the development of the complex human mechanisms responsible for such movements. Though a possible explanation, he found it no more probable than the chance of unlimited numbers of monkeys with unlimited typewriters producing the Encyclopædia Britannica. The mechanisms of which he had been speaking had not come into being spontaneously : neither had Physicist nor Chemist yet shown that cosmic evolution followed orderly lines. Illustrating his point by analogy with life assurance Professor Gray claimed that the laws of physics and chemistry could only be shown to apply to millions of units taken together, not to individual units. Evolutionary laws could only be applied statistically. Were there others ? He thought there were, though their nature was as yet unknown. He thought that there were laws applicable to scales much larger than those of physics and chemistry, namely, biological laws which we did not yet understand. For example, no law of physics or chemistry could explain the mating of animals or the experience of looking at a beautiful oil-painting ; and we were mistaken in trying to cover the field of biology by reference to such laws. It might be, he said in conclusion, that there was some directive principle, and speculative though this thought was he would leave it with us to think upon.

This lecture was indeed a stimulus to thought and it came as a reminder to us that we were fortunate in being members not only of a hospital but also of a university where lectures such as these are so much in place.

Music Club Concert

How well designed the programmes of the Music Club are ! At the concert given on the 29th of May we heard two interestingly contrasted groups of songs, a virtuoso flute concertino, and two choral works ; the " Choral Dance " from Borodin's " Prince Igor " and Bach's setting of the " Magnificat ".

Miss Elizabeth Humphries was the soloist in the two groups of songs and it was a great pleasure to note the authority with which she approached them. However, her interpretation of some of the first group of songs (by Schubert, Brahms, Schumann, Fauré and Strauss) was less sure. It was perhaps a mistake to put Schubert's " Gretchen am Spinnrad " at the very beginning, for this perfect example of the fusion of words and music needs a sympathy of singer and audience which is very difficult to obtain so early in the programme so that Goethe's " Ich finde sie nimmer und nimmermehr " told for little with an audience as yet not captivated. However, by the time Miss Humphries reached Fauré's " Prière " all was light, and in this song she produced an excellent whiteness of tone which exactly matched both words and music. In the second group of songs, which were all by English composers, Miss Humphries was entirely happy. Her interpretation was impeccable in songs as different as Delius's " Twilight Fancies " and Warlock's " The Shoemaker ". Throughout Mr. John Sinfield accompanied sympathetically.

The flute Concertino by Chaminade was a mistake. It has no merit other than as an exhibition piece for the virtuoso and while Mr. Gordon Bradley did show extraordinary virtuosity in getting all—or most—of the notes in, the noise which came out was not pleasant. This was a pity, for it deprived us of the pleasure of listening to a player who obviously has great ability. Mr. Geoffrey Baker had the thankless task of playing the piano part.

The Music Club should be truly thankful that they have Mr. James Gaddarn as their conductor, for he is a conductor who knows what he wants and, what is so important with an amateur choir, knows how to get it. It was obvious from the choir's performance that he had worked extremely hard—and how rewarding this was for choir and audience alike ! The performance of the " Choral Dance " from Borodin's " Prince Igor " was primarily exciting, as it surely should be. The various sections of the work were nicely contrasted and it was unfortunate that, solely because of numbers, the sopranos very often drowned the tenors so that Borodin's interweaving of folk melodies was considerably obscured.

The performance of Bach's setting of the " Magnificat " was the most enjoyable experience that this writer has had at a Music Club concert. The chorus work was excellent, particularly so in the opening chorus, " Magnificat " and in " Fecit potentiam ". In the latter the tenors were particularly good, as were the basses in " Sicut locutus est ". At times the sopranos were obviously uneasy at being divided, but this division did mean that the tenor and bass parts were not obscured. Miss Doreen Watts brought a professional technique and great purity of tone to the wonderful " Et exultavit spiritus meus " as did Mr. Albert Petty to " Deposuit potentes ". Miss Valerie Haywood has a very pleasant voice but her control and phrasing, particularly in " Esurientes implevit bonis " went a little awry at times. The second soprano part and the bass part were sung by two Guy's singers, Miss Humphries and Mr. Eric Bosson. Miss Humphries's mezzo-soprano voice provided a very pleasant contrast to the true soprano of Miss Watts. Mr. Bosson has improved much since he sang in " Messiah " at the Music Club's previous concert. He has not yet the finished voice of Mr. Soothill, who we miss very much, but he is a very valuable member of the club and if he continues to improve comparisons will certainly become odious !

The accompanists in the choral works were Mr. Geoffrey Baker and Mr. Peter Brook who, particularly in the Bach, provided accompaniments far superior to some of the orchestral ones which have been heard in the past. The Music Club is fortunate in having the services of Mr. Baker as soloist, accompanist and factotum.

G.A.T.

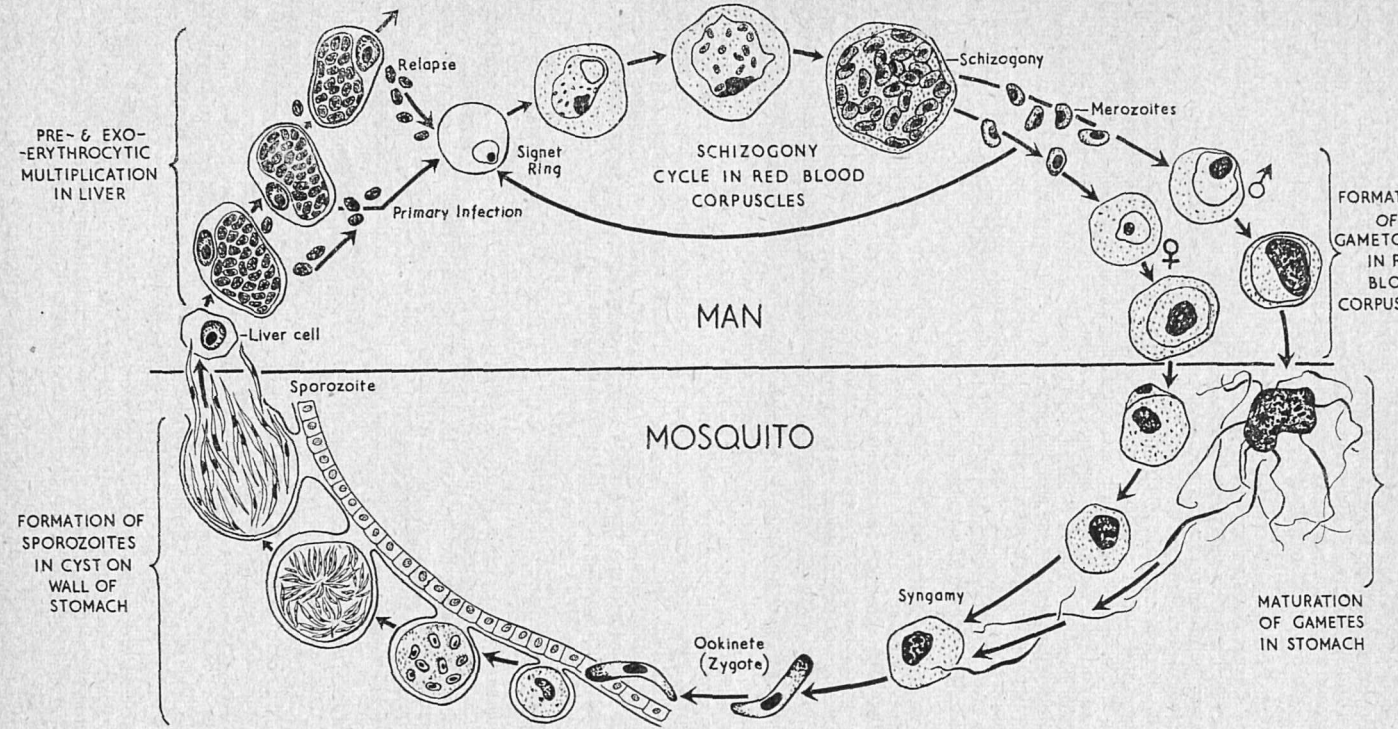

Fig. 1.—Life cycle of *Plasmodium Vivax*.

Some Problems of Malaria from the Standpoint of the General Biologist

By G. E. H. FOXON, M.A., M.Sc., F.L.S.
Reader in Biology, Guy's Hospital Medical School

(Based on a lecture given in the Wednesday afternoon series organised by the Department of Medicine)

Introduction

WHEN inviting me to join in the series of lectures in pre-clinical subjects arranged by the Department of Medicine, Dr. Mann suggested that my contribution should be either on some subject on which research is proceeding in the Biology Department, or alternatively on a subject which, although not one of research, is of interest to me. The lecture on which this article is based fell into the second category. That was not because of any lack of research in the Biology Department, but because that research could not, by any reasonable stretch of the imagination, be regarded as having any clinical interest.

Biologists feel that because malaria is caused by a protozoan and is transmitted by an insect they have at least a right to be interested in the problem of malaria and of course many biologists are actively engaged in anti-malarial work. My standpoint is therefore that of a general biologist who is interested in malaria and not that of a specialist. I hope that perhaps this change of view may be of some interest to those accustomed to regard malaria as yet another disease to be diagnosed, treated and cured and also, if conditions are favourable, prevented.

It is proposed to consider the malaria problem as a biological problem, not very dissimilar from other biological problems, and to attempt to show how some aspects of malariology which appear at first sight to be highly specialised, are really illustrations of methods of thought and investigation which are common to many aspects of biological work. Anyone who studies either parasitic protozoa or anopheline mosquitoes is apt to be thought of as a specialist in a narrow field ; it is hoped to show that this view is incorrect and that the problems with which such a worker is faced are shared with those who work on any group of animals.

I. Problems of Life-History

To the student of elementary zoology it always appears very marvellous how complex life-histories of many animals, both free-living and parasitic have been worked out. The more experienced worker is similarly intrigued and many zoologists have devoted their working life to the investigation of larval forms (which are most abundant amongst marine invertebrates) and in describing their metamorphoses into the adult stages. Turning from free-living to parasitic animals the pattern of the life-history may be complicated by the fact that the larval stages may be either free-living or parasitic in some alternative host ; sometimes both. Again two or more alternative hosts, which have to be infected in a particular order, may exist in the life history ; e.g., the life-cycle of *Diphyllobothrium latum*, the broad tape worm of man, which not only has free living aquatic stages but requires a crustacean, a fish and a man for the completion of the life-cycle.

What the more experienced worker also learns to recognise is that in some instances our knowledge of the life-cycle of parasites is incomplete and dogmatic statements are apt to be used as a cloak for ignorance.

For many years we had all been taught, and most of us had in turn taught, that in malaria the sporozoite on being injected into the blood stream of the human host immediately penetrated a red blood corpuscle. What was kept from us was the fact that this had only been reported to happen on one occasion and that numerous attempts to repeat the observation had failed. Thus for many years the so-called pre-erythrocytic forms and exo-erythrocytic forms which nowadays demand so much attention, were overlooked and by many of us quite unsuspected. The position of these stages in the life-cycle is shown in Figure 1.

The term " pre-erythrocytic " is used for the forms found in cells of the liver and brain, etc., which arise from the sporozoites. Exo-erythrocytic is used for such non-blood forms which are not known to be derived directly from sporozoites.

The demonstration of pre- and exo-erythrocytic forms in bird malaria opened up a new aspect of the chemotherapy of the disease. This is because the different stages of the life-history show different reactions to chemical attack. We are still, as has recently been pointed out (Covell, 1951), without a drug which will attack the sporozoite when it is first injected into the blood. Once the parasite has entered the cells and become the exo-erythrocytic form the picture changes and it becomes much more susceptible.

Another point that may be mentioned here is the relationship of the life-history to relapses. Before the existence of the exo-erythrocytic forms was recognised recurrences of malaria after a period of time, sometimes of considerable duration, were thought to be due to the fact that a small number of blood forms had kept the infection going but at a level insufficient to produce clinical symptoms of the disease. It is now almost certain that relapses are caused by the continuance of exo-erythrocytic stages which for some reason produce large numbers of blood forms at a later stage. What is wanted now, and information is being increasingly sought, is the relation between blood stages and the exo-erythrocytic stages. For example, the following problems arise :— Between the injection of the sporozoite and the first appearance of blood forms are there one or more exo-erythrocytic generations ? Does an exo-erythrocytic form remain indefinitely producing blood forms which are then passed out into the blood stream or do all the products of division come out ? If so do they all infect blood cells or are there two or several generations of exo-erythrocytic forms ? Finally, do the blood forms also give rise to exo-erythrocytic forms at later stages of the infection, and if so what factors are necessary for the production of such forms ?

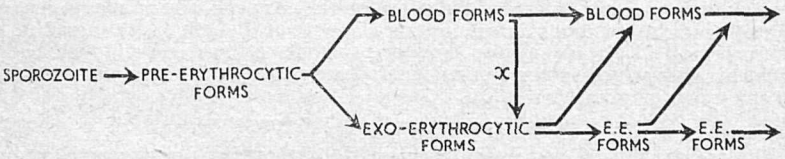

Fig. 2.—Possible inter-relations of blood forms and exo-erythrocytic forms.

The answers to these problems are important from the point of view of chemotherapy for it is by no means certain that all the exo-erythrocytic forms are equally susceptible to chemical attack.

It is known that the relations of the various pre- and exo-erythrocytic stages are not the same in all malarias.

The possible combinations of circumstances which may arise are shown in Figure 2.

In *Plasmodium gallinaceum* in the canary, which is largely used for testing anti-malarial drugs, the sporozoites form pre-erythrocytic forms in the reticulo-endothelial cells of the capillaries in the brain ; these give rise to blood forms but also multiply themselves very rapidly so that the capillaries become blocked ; proguanil (paludrine) has a very dramatic effect on these early forms which appear to be very susceptible to this drug. It has also been shown that if blood forms are inoculated into birds exo-erythrocytic forms again arise (*x* in Fig. 2).

In *Plasmodium vivax* (benign tertian) it has been shown that unless sporozoite infection occurs relapses do not occur and it is assumed that exo-erythrocytic forms do not arise from blood forms. In *P. falciparum* (malignant tertian)

relapses are never so common and it is deduced that the number of exo-erythrocytic generations is very limited so that proguanil (paludrine) will act as a true causal prophylactic. Thus a person who takes paludrine while in a malarious district and then stops taking the drug after coming away from the area will not develop this form of malaria. This can be explained either by the fact that the drug acts directly on the exo-erythrocytic stages or that the blood forms all arise quickly and are acted on at once by the paludrine in the blood stream. In *P. vivax* however, paludrine only plays the part of a suppressing agent, acting on blood forms, and on account of the persistence of the exo-erythrocytic forms, blood forms and hence clinical malaria may develop after the drug has ceased to be taken.

These then are the problems of the life-cycle. Before leaving this subject however, attention should briefly be drawn to the methods by which this latest knowledge has been gained. The work up to 1946 has been briefly reviewed by Davey (1946*a*) ; at that time exo-erythrocytic forms had been found in bird malaria (*P. gallinaceum*) and it had been established that shortly after the inoculation of sporozoites they disappeared from the blood and typical blood forms appeared many hours later. For example, if sub-inoculations are made into fresh hosts instantly then the second host is infected. This is explained by the transference of sporozoites from the first host to the second but in order to do this blood has to be obtained from the first host within 15 minutes of the injection of the sporozoites. Next follows a negative phase during which such sub-inoculations are unsuccessful. This lasts not less than thirty-six hours. After that time the sub-inoculations become increasingly successful until at 72 hours all sub-inoculations are positive. From this evidence it was concluded that, as the schizogeny cycle in *P. gallinaceum* occupies 36 hours, the primary exo-erythrocytic forms or pre-erythrocytic forms were one generation which also took 36 hours to complete its cycle.

In 1944 Hamilton Fairley had shown the existence of a similar negative blood phase in man which lasts for several days and this argued very strongly that exo-erythrocytic forms occurred in human malaria, but it was not until several years later that Shortt and others (1948) were able to prove the existence of this phase and to demonstrate it. The assumption that this phase did exist in human malaria was, however, basic in the work that led to the production of paludrine (Davey, 1946*b*) and forms an example of the kind of assumption which is made by zoologists when attempting to work out an unknown life-cycle. When such assumptions have been made, they must then be checked by direct observation.

II. Resistant Strains

Having mentioned the subject of paludrine there is another point which has arisen of very considerable general biological interest, namely, the occurrence of resistant strains. Resistance to drugs is a fairly common experience these days but it is easier to pass over in the lower forms of life such as bacteria because the general biologist knows little of them and their nuclear detail, and hence their genetic apparatus is obscure. When we come to typical animals, however, the matter must be faced. For example, what is the biological explanation of D.D.T. resistant house-flies ? Until some other answer is proved, we must assume that D.D.T. acts as a selective agent and only those flies which pass the sieve of selection remain to breed, and so all that is being done is the selection of a quality which was previously present but, of course, latent. Resistant strains of malaria are produced when parasites are exposed over a period of time to concentrations of drugs too small to eliminate the infection. If such strains are then exposed to the normal lethal dose, it is found that their resistance is such that the drug has no effect, and perhaps none even to concentrations considerably greater than normal. The orthodox biologist will stick to the same explanation, namely, that all individuals vary and that tolerance to a specific drug will be subject to variation. The sub-lethal dose will merely select those individuals which have the greater tolerance, and breeding of those individuals and further selection produces the resistant strain.

The less orthodox view would hold that the presence of the drug causes reactions in the individuals, presumably of a biochemical nature, which makes them less susceptible and that this change, once instituted, is impressed on the heredity of the organism ; we need not at this stage press the enquiry as to whether this mechanism is of the nucleus or cytoplasmic. We may note that this view rather savours of Lamarkism to the orthodox biologist. We should also note that resistance to drugs is not the only resistance which is found in nature. It has long been known that some animals, e.g., those that live in hot springs, are resistant to temperatures which would kill all normal animals, and similarly acclimatisation to changes in salinity have been surmounted in the course of normal evolution. The fact that not all groups of animals have been successful in colonising hot springs or even fresh water rather suggests that biochemical and biophysical resistance are not characters which are equally variable throughout the living world and therefore I should not be surprised if some species produced resistant strains very much more readily than others. Such theoretical considerations, however, do not detract from the fact that resistant strains of malaria are a difficulty in chemotherapy and an interesting account of the natural infections of patients with a resistant strain of *P. vivax* has recently been given by Wilson and others in the *B.M.J.* (15th March, 1952), but an annotation in the same number suggests that further evidence is required before this is regarded as a true bill. These authors, however, have raised a number of most interesting points to which those interested in the general question of resistance may be referred.

III. Mosquito Control

Ross's discovery that the anopheline mosquito is the vector of malaria is the basis of malaria control as distinct from the cure of the patient ; it is this that has provided the main field for the biologist in which to associate himself with the medical man in attempts to control the disease.

The fact that the larval stages are passed in water has rendered this stage especially vulnerable to attack and thus malaria control frequently becomes involved with problems of irrigation, water supply, and land reclamation.

A point that is of considerable interest to us in this country is why do we not have malaria endemic here ? We all know that until comparatively recent times ague was well established in the Fen country, and malaria is still a disease of considerable importance in parts of Holland and along the Baltic coast into Finland. At the conclusion of the first world war many men who had contracted malaria overseas returned to this country carrying the disease. Nevertheless, contrary to expectation, the disease did not get going again properly. (For details see " Indigenous Malaria in Great Britain ", *B. M. J.*, 1950, i, 1061.) Why the disease did not succeed in re-establishing itself was a considerable mystery, especially as in the Fens suitable *Anopheles* mosquitoes appeared to be present to act as vectors.

Before attempting to answer the question just posed it is necessary to turn aside to take into account a number of points in mosquito biology. These are largely to be considered under the heading of " Systematics ".

Firstly we have to recognise the fact that *Anopheles* mosquitoes can exist without malaria being present. Why this is so is a very complicated story, only parts of which have at present been unravelled. But first and foremost it appears to depend on the habits of the mosquitoes, for certain mosquitoes have been proved, by laboratory experiment, to be able to act as the alternate host in which the sexual phase of the parasite's life-history is completed, yet these same mosquitoes do not act as transmitters under natural conditions. More complicated still, while certain anophelines act as transmitters wherever they are found, others may be vectors in one locality but not in another. For example we read in *Memoranda on Medical Diseases* (8th Edn., 1946) that *A. claviger* in Palestine is a most important vector but in Northern Europe it is not ; this seems to be associated with differing habits. In Palestine it frequents houses but in Northern Europe it lives out of doors and presumably the females take blood meals from domestic animals. This immediately prompts the question, " Are these two geographical regions really inhabited by the same species of mosquito ? " Thus we must tackle the question of

" What is a species ? " By a species we usually mean all those individuals of a similar group of animals which, given the opportunity, could breed between themselves and produce fertile offspring. This is perhaps an ideal definition and we have to realize that at present few of the species of animals in the world have been submitted to this breeding test. Thus we are forced back to some definition such as: " A species of animals is a group of similar animals which are recognised as a species by a competent systematist."

Although they may argue at length as to the mode of evolution, biologists are as a body convinced of the fact of organic evolution. If evolution is accepted as a fact, it must also be recognised that at some stage the members of what have hitherto been one inter-breeding unit, and thus one species, will tend to separate into two or perhaps even more units in which breeding becomes restricted. This is usually brought about by some form of isolation which prevents the members of the two sub-units from breeding together. Once the two sub-units have separated, their genetic constitutions will tend to vary, each along its own line, and at length a time will arrive when the gametes of the two groups will become incompatible and fertile offspring will no longer be produced. At this stage it may be said that a new species will have been evolved. The visible differentiation between the two groups may not, however, have proceeded at the same rate. Thus even to the competent systematist the two species may not be separable by his usual criteria.

Consideration of the factors tending to isolate the two sub-units shows that the most obvious is geographical isolation, but a second and perhaps just as potent factor may be differentiation of habits, so that members of the two groups although inhabiting the same area may not meet for the purposes of reproduction. (For a valuable discussion of modern ideas on evolution, see Carter, 1951.)

It would seem to the ordinary observer that anopheline mosquitoes are a group of animals in which evolution is in the present geological period proceeding at a very considerable rate, and that several so-called " species " are probably in the process of giving rise to other species which are not distinguishable by ordinary morphological characters. Thus we appear to have the condition where apparent morphological species are really divided into two or more " biological races " or " physiological races "—differentiated mainly by habits—which may ultimately be expected to develop visible differences which will become of a specific nature. One complicated systematic situation which must be mentioned is that existing between *A. gambiæ* and *A. melas* in West Africa. *A. melas* was thought to be a dark variety of *A. gambiæ* but further work has resulted in a complicated situation being sorted out. *A. melas* and *A. gambiæ* are separate species but can only be differentiated if the eggs of the individuals are available for identification. Egg characters have also to be used in the distinction of other species in other parts of the world.

Study of varieties of animals within a species shows that where varieties attract the attention of the naturalist, they do so for the following reasons: (1) That the colour or pattern exhibited may fall into varieties. (2) That constant variation may be seen in habits; either breeding habits or feeding habits or both. We have seen that the anopheline mosquitoes do not attract attention for the first reason; the varieties they exhibit fall into the second category, namely, *habits*, both feeding and breeding.

We are now in a position to attempt to answer the question previously asked as to the absence of endemic malaria in Britain. *A. maculipennis* is the vector of malaria in N. Europe. It is found that *A. maculipennis* is not, as was at one time thought, a simple species but can be divided into a number of sub-species. The variety which is now commonest in Britain is *A. maculipennis messeæ* which combines the habits of breeding in fresh water, shunning human habitations, and hibernating through the winter. In Holland the commonest variety is *A. atroparvus* which breeds in brackish water, haunts human habitations, and does not hibernate fully so that it makes biting expeditions in the winter. It is now obvious that ague no longer occurs in the fenlands because the extensive land reclamation that has been undertaken has consisted in keeping out the sea and then pumping the fens dry; thus the water in most of the lodes today is fresh and is unsuitable for breeding of *A. atroparvus*. In Holland it may be supposed that the fact that malaria has become more

widespread during recent historic time is due also to land reclamation. The brackish waters in which the mosquitoes now breed were only comparatively recently pure sea water and later, when drainage is complete, they will be fresh water so that *A. atroparvus* may be expected to disappear.

It may be noted that in the case of brackish water mosquitoes both methods, (i.e., making the water fresh or alternatively salt) have been made use of in mosquito control in various parts of the world.

The study of such changes is really part of the subject of fresh-water ecology and the biologist who seeks to control mosquitoes by such methods must know his fresh-water biology as well as he knows his mosquitoes. Perhaps the most obvious lesson which is to be learnt from ecological study is that we must not regard any environment as static. It is continually changing. In ponds and streams this change is particularly noticeable even by the human time scale. The control of mosquitoes by ecological methods often involves the hurrying or retardation of such processes. An interesting account of such methods is given by Strong (1945).

Thus we see that it is the habits of the mosquito which are so important. The available information on the habits of mosquitoes has been brought together and reviewed by Muirhead-Thomson (1951). From the wealth of information that has been assembled by this writer, it is impossible to do more than discuss one particular problem: the relationship between the habits of mosquitoes and the use of residual insecticides. The fact that mosquitoes breed in water makes the larval stages comparatively easy to attack and thus most research has been concerned with these larval stages. The recent development of residual insecticides which can be used to attack the adult mosquito has changed the picture, and when these insecticides were introduced the basic research on the adult mosquito was not sufficiently advanced to answer immediately all the problems raised. It is obvious that if one is proposing to use a residual insecticide it must be placed so that the insect will come into contact with it for a sufficiently long time to obtain a lethal dose. This involves a knowledge of what the insect is doing when it is not biting. The answer is either resting or egg-laying. Thus the resting place is all-important, for it is here that the insecticide must be placed.

The adult female mosquitoes require a blood meal before laying each batch of eggs, presumably to provide sufficient protein. This meal may be taken from man or other mammalia. Under tropical conditions the egg-laying and feeding cycle, or as it is called, the " gonotrophic " cycle lasts two days. Thus a mosquito which takes a blood meal on the Monday night will by Tuesday night be what is termed " half gravid ", and by Wednesday afternoon the eggs will be ready for laying and the blood of the first meal completely digested. On Wednesday night the eggs will be laid and if this is accomplished sufficiently early, the insect may return for the next blood meal that night so that a further batch of eggs will be laid on Friday, and so on.

Biting does not, as is commonly assumed, take place chiefly at dusk or shortly afterwards, but proceeds through the night and with *A. gambiæ* the numbers ready to bite rise throughout the night and reach maximum just before dawn. This finding is of the greatest practical importance for, as Muirhead-Thomson has said, " In many European hospitals in Africa it is the practice to let down the mosquito bed nets over each patient shortly after dusk, only to raise them again when the patients are wakened as early as one or two hours before dawn. As some of these hospitals are unavoidably situated in places where *Anopheles* are still abundant, the inmates must run a considerable risk of contracting malaria in the very place where they would expect the greatest degree of protection."

To return to the resting sites of the mosquitoes: light seems to be the most important factor in determining the resting place. Mosquitoes in general avoid bright light but nevertheless are attracted to weak light, thus their movements out of houses frequently take place at dawn ; however, increasing light intensity may then cause the mosquito to find another sheltered spot but this time probably outside the house. On the other hand, in some parts of the world the situation may be complicated by mosquitoes which have fed on domestic animals in a stable during the night coming into a house during the

day, for houses are usually built more strongly than stables and hence are darker and provide more suitable resting places. Thus during the day mosquitoes will make mainly minor movements until the evening of the second day when they must proceed to the business of egg-laying. It is the prevalence of resting in houses after biting that causes some species to be spoken of as highly domestic, but of course the mosquito which takes a blood meal and leaves at once is just as great a menace. And this is of importance in the use of residual insecticides. D.D.T. is a most potent killer of mosquitoes provided that it can be brought into contact with them in sufficient quantities for a sufficient time. D.D.T. also kills other forms of life and its use on a large scale such as dusting from the air, though justifiable in time of warfare, is not to be undertaken lightly in peace time in view of the fact that it may cause great disturbances in what it is convenient to call the " balance of nature ". It is therefore more suitable to use it as a residual paint or spray.

Although the extensive use of D.D.T. has been most successful in some parts of the world (e.g., British Guiana and the Amazon region, against *A. darlingi*) in a few places these results have been disappointing—that is when measured not by the numbers of mosquitoes but by the incidence of malaria in the population. This may seem rather surprising at first, for the clearing of houses of mosquitoes would seem to be a big step in the direction of reducing malaria.

The explanation of this contradiction which has been given by Muirhead-Thomson in terms of mosquito behaviour is fascinating both from the point of view of field observation and also from the point of view of the design of biological experiments and the interpretation of their results.

Briefly the explanation is that the daytime house catch is much reduced ; this is of course of " resting mosquitoes " and does not give any indication of the numbers biting. Trapping of mosquitoes leaving specially built houses throughout the 24 hours shows that what is happening is that the mosquitoes enter and bite they then proceed to rest on the walls. If these walls have been treated with D.D.T. then the mosquitos become restless often before they have acquired a lethal dose. The restlessness makes them fly and they will fly towards the weak light from the night sky coming in through the window and so leave the house. Thus although the numbers resting in the house by day is reduced, the numbers biting are not and thus the D.D.T. treatment is having no effect on the transmission of the disease.

This defect is not found with the insecticide gammexane which does not disturb the resting insect until the fatal dose has been acquired. Here a trap placed in the window does not catch the individuals seeking to leave the house during the night as with D.D.T. because they are few, but on the other hand their dead bodies may be collected on the floor the following morning.

However, a difference in the behaviour of the insect to the insecticide may not be the whole problem for it has been shown that the surface on to which the insecticide is sprayed or painted may be of great significance. For example, where native buildings are largely made of mud blocks it is essential that the insecticide shall not be so completely absorbed by the mud block as to be valueless. A recent account of laboratory experiments describes how mud blocks were made with soil from Uganda, Kenya, Jamaica and England. They were then sprayed with D.D.T. or gammexane in 10–20 μ particles at 25 mgm. insecticide per sq. ft. on the blocks. Both insecticides ceased to be visible within 5 days. The D.D.T. mud blocks then ceased to be toxic to the test mosquito *Aedes ægypti* but after 8 weeks 25% of mosquitoes resting on the gammexane blocks were still killed. It was found that both D.D.T. and gammexane had been absorbed into the mud to a depth of 0·1 inch, and that the gammexane had proceeded to vapourise slowly, thereby having a toxic effect.

Thus it is seen that the nature of the substrate is of very considerable importance and it is conceivable that some of the disappointments that have been reported with D.D.T. are due to the absorption of the insecticide into the substratum (for details see Hall, W. J., 1951).

IV. Conclusion

It would be out of place for one who is not an expert to attempt to lay down any scheme of procedure for anti-malarial measures. What can be done, however, is to direct attention to those points for which the biologist interested in these matters would keep a look out on visiting a malarious district.

Firstly, he would expect that the anti-malarial measures should be based upon a sound knowledge of the local vectors.

Secondly, he should admit that each situation requires its own methods and that what he had become accustomed to regard as correct anti-malarial measures at place A would not necessarily be right for place B.

Thirdly, he would ensure that if any large-scale works were to be undertaken, such as making brackish water fresh, or alternatively letting the sea in to inundate marsh land, the biological background had been very fully explored; for it is of no avail making the conditions unsuitable for one vector if they are simultaneously made suitable for another which is waiting round the corner for the opportunity that is being made for it.

Fourthly, he would hope that any insecticides used against any part of the life-history of the mosquito had been subjected to very carefully designed field trials against mosquitoes of the district before they had been recommended for use on a large scale.

I must now close this very hurried survey of some of the biological aspects of the malaria problem. I started by pointing out that in what is at first sight a narrow field, the whole breadth of biological thought may be encountered: thus we have met problems of life-history, systematics, heredity, behaviour, ecology, biochemical reaction and the general problems of evolution.

Each of these branches of biology bristles with its unsolved problems. How can those of us who are not experts but whose interest leads us to acquaint ourselves with the findings of the experts in the various branches, hope to assimilate and appreciate even a small proportion of their work? It will perhaps be agreed that such a task is difficult; if it is then the reader may perhaps forgive some of the imperfections of this attempt at a summary.

I should like to express my thanks to Dr. D. S. Bertram of the London School of Hygiene and Tropical Medicine, for criticism of the original manuscript; also to Miss P. Carter of the Department of Medical Illustration, Guy's Hospital, who has drawn the diagrams of the life-cycle of *P. vivax*, largely from material in the Biology Department.

References

(This short list does not attempt to give more than a few "key" references from which others to the great bulk of modern research on malaria may be obtained.)

Carter, G. S. (1951), *Animal Evolution*, London.
Covell, G. (1951), *Brit. med. J.*, 1951, ii, 1021.
Davey, D. G. (1946*a*), *Ann. trop. Med. Parasit.*, **40**, 453.
" " (1946*b*), *Trans. R. Soc. trop. Med. & Hyg.*, **40**, 171.
Fairley, N. H. (1945), *Trans. R. Soc. trop. Med.& Hyg.*, **38**, 311.
Hall, W. J. (1951), *Report of Colonial Insecticides, Fungicides and Herbicides Committee. Fourth Annual Report.* Cmd. 8303, H.M. Stationery Office.
Memoranda on Medical Diseases in Tropical and Sub-Tropical Areas, 8th Edn., 1946, H.M. Stationery Office, London.
Muirhead-Thomson, R. C. (1951), *Mosquito Behaviour in Relation to Malaria Transmission and Control in the Tropics*, London.
Shortt, H. E., Fairley, N. H., Covell, G., Shute, P. G., and Garnham, P. C. C. (1949), *Brit. med. J.*, 1949, ii, 1006.
Shortt, H. E., and Garnham, P. C. C. (1948), *Brit. med. J.*, 1948, i, 1225.
Shortt, H. E., Garnham, P. C. C., Covell, G., and Shute, P. G. (1948), *Brit. med. J.*, 1948, i, 547.
Strong, R. P. (1945), *Stitt's Diagnosis, Prevention and Treatment of Tropical Diseases*, 7th Edn., London.
Wilson, T., Munro, D. S., and Richard, D. R. (1952), *Brit. med. J.*, 1952, i, 564.

The Shoe Fitting Service

National Foot Health Week would seem an appropriate occasion for a note about Guy's shoe fitting service which is now in full operation. This new venture is intended to serve three purposes. First, to ensure that patients of the hospital who are under treatment for foot defects would be able to get suitable shoes properly fitted, as ill-fitting or bad selected footwear will negative the effect of any remedial measures undertaken. Second, by making the service available to all members of the staff of the hospital, including nurses and students, not only will they share the advantages of the service, but by doing so they will also assist in making possible the third object of the service, namely, research. It is hoped that as a result of the experience gained by supplying members of the staff and students, and their opinion and comments on the footwear supplied, we shall gradually accumulate a mass of data which should be most helpful in defining and developing the best types and styles of shoes for various occupations. Detailed records are kept of all shoes supplied and a repair service, which enables a later check-up to be taken, is also available.

All those working at the hospital will, by making use of this service, be helping in this work as well as helping themselves. Their co-operation is very much desired, as full stocks are now available.

LA BOISSELLE

The newly planted poplar tree
Along the metalled road
Is shaken by her ecstasy
Where other tree has stood ;

The brown winged partridge sits her time
Her fragile young to fledge
Near sunken track which breaks the line
And cuts the rolling ridge ;

And frightened field-mouse frets the earth
Some cover to provide
To bring her family to birth
Where many hopes have died.

J.C.D.

June **ACADEMIC**

Exhibition. Surgical Department. "Carcinoma of the Breast."
13th 10.00. Surgical Department. Round by Mr. Rodney Smith. Clinical Theatre.
1.00. Professor F. F. Schwentker. Clinical Lecture. "The Rôle of Streptococci in Rheumatic Fever Prevention."
2.15. Department of Medicine. Combined Round.
17th 12.00. Professor M. A. Rushton. Dental Clinical Lecture. "Some Cases of Interest."
1.00. Professor H. Alvarez and Professor Caldeyro-Barcia. Clinical Lecture. "Uterine Contractility during Pregnancy and Labour."
19th 1.00. Mr. Eckhoff. Clinical Lecture. "Gall Stones."
5.00. X-Ray Meeting. Gordon Museum.
21st 10.00. Dr. Forman. Skin Demonstration.
23rd 1.00. Dr. Hoare. Clinical Lecture. "Cerebral Arteriography."
26th 5.00. X-Ray Meeting. Gordon Museum.
28th 10.00. Clinico-Pathological Meeting.

Hypnotism and Hysteria

By DAVID STAFFORD-CLARK, M.D., M.R.C.P., D.P.M.

A Clinical Lecture delivered on 28th April, 1952

LADIES AND GENTLEMEN,—The subjects of hypnotism and hysteria are linked in history as well as by psychological and physiological associations. I have chosen them for this lecture because they offer an interesting way of approaching the relationship between mental activity in health and in illness, and between the voluntary use of mental faculties on the one hand and their involuntary betrayal of health on the other. To understand something of the nature of both these phenomena there are certain essential concepts which must be clearly defined. These rest upon the fundamental hypothesis that mental life can be divided for practical purposes into a conscious and an unconscious element, and that these two elements can be further subdivided respectively into a central zone of attention, whereby consciousness is focussed upon certain particular elements of experience, while others remain peripheral but within the borders of general awareness ; and, in the unconscious area of mental life, into preconscious and wholly unconscious material. This latter division can best be explained by saying that preconscious material includes everything that we know or can remember at will, but which is not immediately present in our minds at any particular time unless we choose to recall it. Examples of preconscious material therefore include all our past memories except those which we are actively contemplating at the particular instant under consideration, and all the store of knowledge which we have acquired deliberately or accidentally throughout our lives. More deeply unconscious material is represented by traces of past experiences, usually with a strong emotional flavour, which we have not only forgotten, but of whose very existence we are no longer aware in any way whatever. Such deeply unconscious material may in fact include events and feelings of the greatest importance in our lives ; these have none the less been so effectively repressed that we are quite unaware that they ever happened at all.

Conscious mental life therefore can be regarded as having a focus of attention and a periphery of awareness, while unconscious mental life includes a reservoir of memories which are available to recall, and a deeper reservoir of memories which are not. It is part of the modern theory of psychopathology that the deepest memories, those usually associated with powerful and sometimes unbearable emotion, may nevertheless influence our feelings through consciousness, although they do this by creating emotional tensions whose origin remain unknown to us. Against this background, whose elaboration would necessarily form the subject of an entirely separate lecture, we can set the two essential concepts which we have to consider today, namely, suggestion and dissociation.

Pierre Janet defined suggestion as " the induction of an impulse in place of reflective realisation . . ." Another and rather more modern definition by Young states that suggestion consists in the communication of ideas or attitudes in such a way as to elude criticism : it is therefore a method of indirect appeal to the person to be influenced. Both these definitions stress the subordinate role of objective intellectual criticism and the comparatively dominant role of emotional appeal in producing the response. Suggestion can be direct or indirect ; direct suggestion is usually exemplified by the communication of an idea by one person to another in terms which the recipient can recognise, and can himself relate to the object of the suggestion. A doctor who tells a patient that he is looking much better is employing simple direct suggestion of this kind, but it may be no less effective because the patient realises that it is being employed. Indirect suggestion relies upon the creation of an effect without this effect being necessarily deliberately intended by the creator, or understood by the subject. To be kept waiting for an interview may suggest indifference on the part of the interviewer, or may increase his prestige in the eyes of the candidate for the interview, largely depending upon the emotional attitude which the latter has about the interview in general. In either case the suggestion is likely to act quite powerfully, and may even influence the course of the subsequent interview profoundly unless it is recognised and counteracted.

The power of suggestion in its effect upon a particular individual seems to be related to certain capacities in that individual which are of considerable importance to him in every-day life. These include his ability to form a mental concept of an experience, quite apart from its physical reality, to elaborate this mental concept through his imagination and the employment of whatever associations to such a concept he may have, and finally to respond *as if* this concept were real.

An illustration of the way in which these capacities work in practice is provided by the effect of suggestion upon the average person's ability to walk along a plank six inches wide. If this plank is on the floor or stretched between two chairs few of us have the slightest difficulty in walking along it. But if it is stretched between a couple of girders two hundred feet in the air there are very few people indeed who could walk along it at all. Yet the physical conditions of the situation have not significantly changed. The plank is just as wide and the subjects' capacity to walk in a straight line is theoretically no less. But the concept which he has formed of the danger of falling, and its elaborations and associations, produce so powerful an effect upon him that he responds as if a fall were inevitable. If he attempts to walk across the plank, the danger of falling will in fact be enormously increased, because of the effect of suggestion upon his proprioceptive centres as well as upon his mental state in general. By contrast the steeple-jack has a rather different attitude to this procedure and feels quite confident that it is perfectly easy to walk across the plank. For him, suggestion is acting positively, and so it *is* perfectly easy for him to do it. The type of suggestion operating in cases of this kind is called auto-suggestion, because it springs from the personal experience of the individual, without the influence of another person. A second example of suggestion, conveyed through the authority of another person, will point the distinction.

Suppose you have been summoned for a routine examination by the physician in charge of the Student Health Service. After clinical examination you have, again as a matter of routine, a chest X-ray. Perhaps the physician wishes to see you again in a day or two, and when you enter the room you find him peering at a chest X-ray and murmuring to himself in a slightly concerned manner. At once your pulse rate is likely to rise, your blood pressure to increase, and unless the suggestion which is already being powerfully conveyed by the situation is effectively counteracted, you may well come to believe that you are suffering from phthisis, and even experience some of the more well recognised symptoms such as anorexia, loss of weight, lassitude, and night sweats during the ensuing weeks. That this sort of thing does not in fact happen very often is due to the care which a responsible physician takes not to allow such a suggestion to be conveyed indirectly or without explanation. But without such care your own mental concept of the significance of an ominous frown over a chest X-ray, elaborated by your imagination, can rapidly produce a condition of discomfort and even of prolonged anxiety, even though in fact your lungs may be perfectly sound and the X-ray belong to somebody else. In this latter example it is of some interest that the prestige of the person conveying the suggestion may have a great deal to do with the force which it carries for the subject. This is a principle which we shall meet again when considering both hysteria and hypnosis in detail.

Meanwhile it remains to be said that the whole of this capacity to represent ideas with an emotional and imaginative elaboration in one's mind, is essentially purposeful and carries with it a psychological and biological significance. People who are quite incapable of responding to suggestion are not only extremely rare, they are also usually confined either to those so mentally defective as to be virtually without imagination, or to patients with psychotic illnesses whose imagination and capacity for attention are no longer under their own control or even accessible to the control of others. The normal corrective to excessive influence of suggestion is a balanced and well integrated intellect, capable of reasoned criticism. It follows, therefore, that if suggestion can be insulated from such corrective influence, for example by operating in an area of the mind not immediately available to conscious control, its effect will be enormously increased. When an area which is normally under conscious control is split off and becomes temporarily part of the domain of unconscious

mental life, described at the beginning of the lecture, it is said to be dissociated ; in this way the concept of dissociation can be used to explain how in certain instances suggestion can operate in such a degree of isolation that it becomes the dominant feature in the experience and behaviour of the person concerned.

This would seem to be the actual mechanism whereby the manifestations of both hypnotism and hysteria may be produced. Hysteria has been defined by Sir Charles Symonds as a condition in which symptoms, not of organic origin, are produced and maintained by motives, never fully conscious, directed towards some real or fancied gain. An alternative definition by Professor Aubrey Lewis is that hysterical symptoms represent an attempt, never fully conscious and frequently unconscious, to obtain some advantage from the representation of symptoms of illness. In practice the advantage may be totally illusory and the symptoms both painful and crippling ; but the principle underlying the illness remains the same. In the most superficial types of hysterical illness, the advantage tends to be comparatively obvious to the dispassionate observer while the symptoms directed towards it may be equally transparent. It may indeed be difficult to draw a hard and fast line between conscious deliberate malingering on the one hand and the more superficial type of hysterical illness on the other hand. Nevertheless true malingering is exceedingly rare if only because of the capacity inherent in every human being to believe what seems to be necessary or desirable to him ; this is in itself an effect of suggestion and may explain why hysteria, in contrast to malingering, is comparatively common.

However, one fact which is most important for the doctor to accept and understand, is that a patient with a hysterical illness, although not suffering from the particular form of structural disability which he may believe to be responsible for his symptoms, is nevertheless unquestionably sick. Moreover the representation is unfeigned, and just as real as far as the patient is concerned as would be comparable symptoms with an organic or structural basis. The precise physiological nature of the mechanism whereby such symptoms are caused remains unknown. A most interesting hypothesis was advanced by Sir Arthur Hurst, dealing with this question in his book " The Psychology of the Special Senses." He suggested that the basis of hysterical blindness, paralysis, or paræsthesia, might lie in an abnormal functioning of the synapse lying on the neuronal pathway between the brain and the periphery. In this way a sensory or afferent impulse from the periphery would fail to pass the synaptic block and so the patient would be completely unaware of the stimulus, despite the possession of a structurally intact nervous system. Similarly an efferent motor impulse would fail to reach the muscle group for which it was intended and motor paralysis would result. Hurst advanced this hypothesis in the beginning of his book apparently on an illustrative basis. Later in the book he seemed to use it as though it were a neuro-anatomical explanation. While there is convincing evidence that it cannot be accepted as an explanation on this basis, its interest and importance lies in the evidence which it provides that this extremely acute observer had satisfied himself as a result of his own experience that such blindness, paræsthesiæ or paralysis, were absolutely genuine as far as the patient's own subjective awareness was concerned.

In practice the form taken by hysterical illness seems to be determined by a combination of factors, of which the most important are the particular stresses to which the patient has been subjected and from which he wishes to escape, the conception which he has formed of the illness which is to provide this escape, and the capacity of the symptoms which finally emerge not simply to solve the patient's difficulties or conflict to some extent, but also to symbolise for him the sort of solution which is emotionally acceptable even though in fact it may be unobtainable.

For example, a patient attended Out-Patient's recently complaining of an inability to keep his eyes open while driving a delivery van. He was a young man in his early thirties, married with two children, who was in the process of expanding and developing a mobile library service which he had founded with his ex-service grant. His description of his symptoms and the findings on clinical examination left no doubt that the symptom was one of hysterical blepharospasm. The effect was that after he had been driving his van for

periods of time varying between half-an-hour to several hours, his eyes began to close, his eyelids to twitch and crinkle, until finally he had to stop the van because the periods during which his eyes were closed or almost closed made it dangerous for him to continue attempting to drive.

Careful investigation of his history revealed that while he had never had any serious physical or nervous illness in the past, the present symptoms had come on following an accident when he was driving his van over icy roads during the winter. He had come up behind another vehicle approaching some traffic lights, had attempted to stop but had skidded with locked wheels into the back of the vehicle in front, doing some damage to both vehicles and banging his own head on the windscreen. Just before the collision he remembered flinging up an arm and closing his eyes. The accident had in fact been trivial but the symptoms of blepharospasm had persisted from that time on, and now threatened his livelihood. The underlying source of conflict was discovered when his personal and emotional relationships were explored. His wife was ill and one of his children was sickly and the doctor had said that it would be better for the family to live in the country. He himself wanted to do this but he had recently pooled his resources with a brother-in-law, who was now his partner, and who was unwilling to buy him out until the business had been more firmly established. Furthermore he could see no way of being sure of a comparable income if he gave up the library job and moved to the country. He had been worrying about this a great deal before the accident and had been wondering if there was not some way in which he could persuade his brother-in-law to buy him out at once, and so enable him to find an alternative job and place to live in the country before the spring.

He was able to accept the implications of all this within the first few interviews and thereafter his hysterical blepharospasm yielded very rapidly to treatment with hypnosis. He reached a better understanding with his brother-in-law and a compromise whereby he would be free to leave the business within six months. Discussing the whole course of events afterwards he said spontaneously, "The whole thing was worrying me to death. I couldn't see any way out of it; I felt I wanted to close my eyes to the whole business . . ."

This case illustrates the way in which hysterical illness may be woven into the fabric of the patient's current problems and even take some of its form from a combination of accidental circumstances surrounding the central stress, and from a symbolic representation of the patient's wishes in regard to it. Other examples are provided by patients who exhibit hysterical vomiting in situations in which they cannot stomach some chronic personal problem, or even total paralysis where they can no longer carry the burdens with which their life confronts them.

Removal of such symptoms by hypnosis alone, without a preliminary examination of the circumstances in which they have arisen, and particularly without a successful attempt to enable the patient to deal in a more constructive way with these circumstances, may lead not to recovery but to final collapse and disaster. Ideally the aim of treatment must be to gain the patient's acceptance of the nature of the illness and to enable him to acquire not simply recognition of the origin of his symptoms but an awareness of the underlying problems and an ability to solve them along less wholly unsatisfactory lines. Unless this is done the patient will not only resist attempts to cure him, since they threaten to deprive him of his last defence against insoluble problems, but may react catastrophically if, despite resistance, symptoms are abolished without further help or understanding being provided.

I have known such a patient, spectacularly cured of a hysterical paralysis, commit suicide the same evening. The paralysis in this case had been the last desperate effort to stave off defeat by an underlying depression which threatened both his capacity to work and his whole conception of his future as a family man and provider. Hysterical symptoms are not uncommon as a means whereby other more subtle, serious, and insidious illnesses announce themselves. They may be seen in the early stages of organic brain disease such as cerebral tumour, or disseminated sclerosis; they may prove to be the prodromal manifestations of schizophrenia or the resistant sequel of head injury. Often because of their crudity or transparency to all but the patient they provoke

contempt and hostility, but always they are a warning that a human being in distress has found no better solution than a partial surrender. To unmask them is easy. To restore to true health the patient displaying them is often exacting and difficult, but there can be no question about which way the doctor's duty lies.

Hysterical symptoms may be seen under conditions of exceptional stress in a substantial proportion of otherwise apparently stable and well balanced people. But there are certain individuals who seem particularly prone to display them in response to marginal stress, and who are more liable to this form of illness than to affective disorders such as anxiety or deep depression. The personality of people of this type has been studied objectively by psychologists and psychiatrists for some years, and it has now proved possible to delineate what can be called the hysterical type of personality. Such a personality tends to be characterised on the psychological side by an outgoing extroverted attitude, a relatively good capacity to make contact at a superficial level with other people, a histrionic type of behaviour with a strong tendency to dramatisation, and a measurably high degree of suggestibility. On the physical side there is evidence of anatomical and physiological immaturity. Such people tend to look considerably younger than their age, to exhibit immature patterns of electrical activity in their cortex as recorded by the electro-encephalogram, and to have a higher proportion of immature forms of capillary loop in their nail beds when examined microscopically under transillumination, than the average member of the population. The condition appears to be partly constitutional and partly acquired. Its acquisition seems in turn to be related particularly to an incomplete and very often deeply divided emotional relationship to one or both parents, characteristically the parent of the opposite sex. It is as though such people had failed to complete that part of the growing-up process which depends upon a successful passage through adolescence, wherein the child's dependence upon the parents is replaced by the adult's respect and regard. People of this kind tend therefore to be both over-demanding and yet shallow in their relationship to others, to display something of the irresponsibility of children towards adult decisions, and a good deal of a child's helplessness in dealing with the complications with which such irresponsibility inevitably confronts them. It is perhaps understandable that for such people both dissociation and suggestion offer a more acceptable solution than the often painful and infinitely complicated processes of adult emotional adjustment.

But while the hysteric has stumbled upon the powerful effects of suggestion, and uses them involuntarily and unconsciously to produce symptoms of illness in the face of difficulties for which he can find no other answer, the patient who seeks and accepts treatment by hypnosis from a competent and responsible doctor, can often achieve equally spectactular but far more satisfactory effects by voluntarily co-operating with the power of suggestion directed towards relief of conscious tension and distress, or their autonomic equivalent in physical symptoms.

Hypnotism consists therefore in producing a condition in the patient of heightened suggestibility, and of temporary dissociation from anxiety or misgiving, which together combine to enable him to achieve a mental representation of the response suggested. This in turn will then become part of the actual pattern of his feeling and behaviour.

Long before the modern theoretical basis of hypnotism had been approached, the practice of hypnotism itself was widely known to mankind. There are records of hypnotic phenomena being produced in groups of people or in single individuals in the earliest writings of the Greek, Chinese, Indian and Egyptian civilisations. There is even a reference to this mysterious power in the great epic poem of the Finnish people, the Kalevala. But the man whose name is always associated with the subject in more recent history is Anton Mesmer, who began to practice his technique in Vienna and then came to Paris in 1778 to found the cult of mesmerism, which was to influence medical thought and action throughout the whole of Europe and America. Mesmer believed that the basis of the results he could produce lay in manipulating the magnetic influence of the stars upon human bodies, each of which was supposed to have its own magnetic properties, and which received this influence through

a mysterious fluid, very much like the later physicists' conception of the ether, which permeated the whole creation and transmitted magnetic influence from one element to another. Mesmer grouped his patients round a "magnetic cauldron" which was simply a large bath filled with water, iron filings, and various chemicals varied at his own choosing, from which protruded a number of metal rods. The patients stood round the cauldron, some of them holding the rods and all of them holding hands. Mesmer walked about behind them waving his own wand and murmuring incantations. The suggestive effect of this performance was remarkable but its unmistakable theatricality led to Mesmer's being branded as a charlatan. While certainly not a meek or modest man, he was none the less probably entirely sincere, and certainly represented one of the few positive sources of hope for patients with functional illness at that time. However, mesmerism not only attracted powerful enemies in the medical professions of France and England, but remained to prejudice the attitude of the profession as a whole towards hypnotism when this was separated from the mumbo jumbo of magnetism by Braid in Britain, and later studied by such French physicians as Liebault and Bernheim at Nancy, and Charcot in Paris. One of the earliest and most eminent protagonists of the medical use of hypnotism was Dr. Elliotson, a senior physician at University College Hospital, who studied the subject carefully and chose it for his Harveian oration to the Royal College of Physicians in 1846. Elliotson was a fearless innovator who also introduced the stethoscope to British medical practice. For both these innovations he was violently criticised and the bitterly hostile reception accorded to his attempt to gain an objective acceptance of hypnosis by his own profession led to his resignation from his professional appointments. Nevertheless he was not without disciples. A surgeon called Dr. James Esdaile, working for the British East India Company, began to practice hypnosis upon his Indian patients, and between 1840 and 1843 he performed 261 major operations using hypnosis to produce anæsthesia. These included amputations of thigh, leg, arm and breast, as well as removal of the eyeball and the resection of the largest scrotal tumour at that time recorded. There were no other means of producing anæsthesia available and Esdaile's method was therefore regarded as not simply spectacular but virtually miraculous. Once again the reception of the profession as a whole was one of cynical antagonism. Doctors even went so far as to maintain that Esdaile's patients were shamming for reasons best known to themselves, and one of them was bribed to come over to England for a considerable sum of money, to maintain that he had felt the pain of his operation, although in fact at the time every witness of the operation agreed that he was totally unaware of it.

Nevertheless it is probable that surgery would have led us to a much more complete familiarity with the technique of hypnosis and the breadth and scope of its effects, simply because of the need for anæsthesia which every surgeon recognises. But within a year or two of Esdaile's brilliant success, the discoveries of ether and laughing gas provided the profession with apparently easier and more reliable sources of anæsthesia, with the result that hypnotism was abandoned by all except the persistent followers of Mesmer, and a handful of physicians working to define its relationship to hysteria and to neurological symptomatology.

The most famous of these was Charcot, who established hypnosis as a major clinical attraction of his famous clinics at the Salpetriere Hospital in Paris. A brilliant clinical neurologist, who examined his patients in detail, he was able to demonstrate the difference between the signs of paralysis induced by hypnosis and that due to organic disease of the nervous system. From this, however, he drew the somewhat misleading conclusion that it was only in patients suffering from what we should now call hysterical personality that the phenomena of hypnotism could be induced by the physician. This led him to the view that hypnosis itself was a pathological entity and the capacity to be hypnotised a sign of abnormality. It was this doctrine which separated the views of Charcot from those of Leibault ; it had also the effect of confining the use of hypnotism in Paris to demonstrations rather than to treatment, and despite the greatness of Charcot as a physician it seems now indisputable that the effect of his work with suggestible patients at these demonstrations was almost without exception to make them worse.

In a lecture of this kind it is impossible to go into the actual technique of producing a hypnotic state in detail. It is, however, possible to describe the various stages through which the hypnotised subject passes and to give an indication of the relative frequency with which these stages may be produced in members of the normal population. The stages most commonly described are four and are illustrated in the following table :—

Depth	Objective Signs
Hypnoidal State ..	Relaxation of voluntary muscle. Fluttering and involuntary closure of eyelids. Feeling of drowsiness and well-being accompanied by complete rapport.
Light Trance	Varying degrees of anæsthesia or paralysis of limbs can be induced at will. Alternatively limbs can be made tireless, and the whole body can maintain postures without fatigue for indefinite periods. Anæsthesia when obtained is of the glove and stocking variety.
Medium Trance ..	Partial or complete amnesia may be overcome, or alternatively induced as a post-hypnotic phenomenon. Other post-hypnotic changes include simple post-hypnotic suggestions, post-hypnotic anæsthesia (as for painless childbirth) and complete amnesia for suggestions made during hypnosis if this is desired.
Somnambulistic Trance	Patient is able to open eyes without affecting trance will act out bizarre post-hypnotic suggestions if these are made, displays complete somnambulism and may be induced to experience visual hallucinations either during hypnosis or as transient post-hypnotic phenomena.

If we add to these four stages the state of complete insusceptibility to hypnosis, we can construct a second table to illustrate the varying percentages of the normal population who are likely to be capable of reaching these stages in the course of normal hypnosis, provided their full co-operation is obtained.

Entirely Refractory	5%
Hypnoidal State Only	10%
Light Trance	25%
Medium Trance	35%
Somnambulistic Trance	25%

Each of these stages can be accepted as including those which have preceded it : at least 90% of the population therefore can be expected to attain the hypnoidal state, which is often sufficient for therapy.

From this it will be apparent that the practibility of hypnosis in a co-operative subject with a competent hypnotist is very considerable. As a rule at least half a dozen sessions are needed to enable the subject to reach the optimum level of hypnosis for either anæsthesia or relief of symptoms previously produced by suggestion on a hysterical basis. But in some patients one or two sessions may suffice while in others as many as twenty or thirty may be necessary. It must be emphasised that it is quite unnecessary for the patients to lose consciousness or to be in any way out of touch with their surroundings for hypnosis to be successful. Sleep and unconsciousness *can* be produced, but they are not essential and are often better avoided, particularly if the patient is afraid of the implications of " losing control ".

The physiological basis of hypnotism has still to be fully explained. It seems to have something in common with sleep, yet the patient need not be unconscious, and the behaviour of the pulse, respiration, blood pressure and tendon reflexes all resemble that of the waking rather than the sleeping state. While evidence of electro-encephalography is apt to be equivocal in investigating hypnotic states, it certainly does not support the theory that they represent the type of disturbance of consciousness seen in sleep or anæsthesia. The psychogalvanic response, which may be simply described by saying that it is a method of measuring skin resistance in response to painful stimuli, which is in the region of 5,000 ohms during the waking state and may rise to 50,000 during sleep, usually varies between 4,000 and 5,000 during hypnosis.

Anatomically the theory has been advanced that there is a localised centre for hypnotic phenomena in the brain stem, in the region of the third ventricle. The arguments for this are less conclusive than those which favour the existence of a sleep centre in much the same area. The whole range of hypnotic phenomena have been claimed by Hilger, and later by Slater, in a small book which I reviewed in the Guy's *Gazette* a few months ago, as being merely the elicitation of previously existing conditioned reflexes. If this explanation is supposed to apply to hypnotic behaviour as opposed to normal behaviour, it is quite untenable. Hypnotic behaviour can be as variable and as original as normal behaviour and demands no previous specific period of conditioning for its success. If on the other hand the whole basis of human behaviour is to be regarded as the outcome of conditioned reflexes, a much wider philosophical problem is being raised, which in my opinion can be equally effectively dismissed by arguments which are none the less beyond the scope of the present lecture.

In conclusion we may deal with some of the popular beliefs about hypnosis which are in fact fallacies. These beliefs and fears may be expressed for the sake of clarity in the form of questions to which the answers can then be given:—

Q. Is it true that a hypnotised subject will remain unconscious unless and until he is deliberately commanded to wake by the hypnotist ?

A. No : A hypnotised subject left alone will awake spontaneously either within a few moments or at most within a matter of hours, as if from normal sleep, and without ill effects.

Q. Does hypnosis " weaken the will " ?

A. On the contrary, to co-operate in the experience of being hypnotised is in fact to develop one's powers of concentration and controlled imagery. These in fact reside in the subject and not in the hypnotist, who merely elicits them and trains the subject to make use of them.

Q. Can a hypnotised subject be made to carry out acts in conflict with his wishes or moral principles ?

A. This has been carefully investigated by a number of psychologists in the United States. One of them, Rowlands, believed that it was possible to produce such action by hypnotised subjects. He based this belief upon his success in inducing hypnotised subjects to attempt to pick up live rattle snakes, of which they were terrified in their normal conscious state, or to throw real sulphuric acid in his face. In both cases his subjects were separated respectively from the rattle snakes and the hypnotist by a layer of non-reflecting glass which was presumed to be invisible to them. In fact it appears now certain that these subjects knew that there was no real danger, not so much on a rational basis as because they had agreed in advance to trust the hypnotist and trusting him they assumed that what he was telling them to do would not in fact be harmful. They were of course right. It is possible that a hypnotised subject could be tricked into a dangerous or harmful act or persuaded into doing something on the hypnotist's responsibility which he might hesitate to do on his own. But in this way of course they do not differ from normally conscious people. Another investigater, Ericksen, taking fifty normal subjects and explaining to them beforehand that they might be commanded to carry out acts which

would in fact be repugnant to them, found that in every one of fifty tests, the subject awoke rather than carry out the repugnant act.

The only danger which must never be forgotten in the use of hypnosis is the danger of reinforcing an already latent and potentially damaging suggestion in the mind of a hysterical subject, and then failing to deal with this suggestion when it has been aroused. A recent case in which a patient of admittedly dependent personality was induced for the purpose of a stage demonstration to cry for her mother, and then was left with this suggestion still operative after the performance was over, illustrates the danger in a topical way. Hypnosis of hysterical subjects or indeed of anybody at all should only be carried out by a competent medical practitioner with the object of relieving or improving the subject's mental or physical state. There is no other acceptable justification for the employment of so subtle and yet powerful an agent in the control of human behaviour and response to experience. Hypnosis as a stage spectacle has no more ethical justification than the performance of surgical operations or the public exhibition of childbirth for purposes of entertainment.

REFERENCES

Hilger, W., *Die Hypnose und Die Suggestion*, Jena Gustav Fischer, 1925.

Janet, Pierre, *Psychological Healing : A Historical and Clinical Study*, translated by E. & C. Paul, New York, MacMillan Co., 2 volumes.

Lewis, Prof. Aubrey, Section on Psychological Medicine in *Price's Textbook of Medicine*, Oxford University Press, London, Humphrey Milford, 1950.

Salter, A., *What is Hypnosis*, London, Athenæum Press, 1950.

Symonds, Sir Charles, *Reports of the Flying Personnel Research Committee*, H.M. Stationery Office, 1947.

Young, P. C., *Journal of Abnormal Psychology*, **22**, 130–139, 1927 ; *Psychological Bulletin*, **24**, 540–560, 1927.

Sport

CRICKET

Inter-Hospitals' Cup. 2nd Round

Guy's *v.* London Hospital

At H.O.P. Result—Won by 158 runs

Guy's 265–6 dec. London Hospital 107

Guy's, put in to bat, started off badly, their first three wickets falling for 38. Then Lipington and Allan steadied the batting and the fourth wicket did not fall until 105. Williams then helped Lipington to take the score slowly and cautiously to 196 before the latter was out for a very attractive 98. Gibbons and Bissoon Dath then helped Williams to push the score along quickly and Guy's declared at 265 for 6, Williams making a very valuable 52 not out.

London started briskly, but when their first wicket fell at 31, the Guy's bowlers gained the initiative and the rate of scoring slowed down considerably. From then on wickets fell at regular intervals, London being eventually out for 107. Bissoon Dath finished up with 6 wickets for 25 runs.

Guy's

W. J. Howells, b. Fisher	19
N. R. Cooke, c. wkt., b. E. Scanlon ..	12
D. M. Lipington, c. E. Scanlon, b. Eadie	98
P. E. Pickett, b. Fisher	0
D. M. E. Allan, l.b.w., b. Eadie	23
M. Williams, not out	52
R. E. Gibbons, c. wkt., b. Eadie	14
H. R. Bissoon Dath, not out	22
K. W. Gray did not bat	
M. Lyon " " "	
D. W. Atkinson " " "	
Extras	25
Total for 6 wkts. dec. ..	265

Bowling : Lyon, 8-2-20-0 ; Bissoon Dath, 8-1-25-6 ; Gray, 9-2-34-1 ; Allan, 6-1-16-2.

Guy's 1st XI *v.* Ashtead

Away. Result—Lost

Guy's 170–8 dec. Ashtead 171–6

Guy's

D. E. Blake, c. Street, b. Burnand ..	9
N. R. Cooke, l.b.w., b. Henty	62
M. Williams, c. & b. Gough	4
W. J. Howells, b. Weatherill	28
E. R. Gibbons, b. Burnand	18
D. M. Lipington, not out	7
F. Trist, b. Gough	13
W. Cahill, run out	10
M. Willis, c. Robertson, b. Gough ..	0
T. Smith did not bat	
G. Rosaire " " "	
Extras	17
	170

Bowling : Smith, 13-0-51-3 ; Trist, 5-1-23-0 ; Howells, 3-0-30-1 ; Cooke, 7-0-41-2 ; Rosaire, 5-1-19-0 ; Willis, 3-0-17-0 ; Williams, 3-0-19-0.

Guy's 1st XI *v.* Wadham College, Oxford

Result—Won

Guy's 232–6 dec. Wadham 87

Guy's

D. E. Blake, b. Forey	75
N. R. Cooke, l.b.w., b. McGeorge ..	12
D. M. Lipington, c. Wicket, b. Pardoe ..	2
D. M. Allan, b. Forey	15
M. Williams, not out	59
M. Willis, c. Caws, b. Forey	0
H. R. Bissoon Dath, l.b.w., b. Forey ..	55
K. W. Gray, not out	6
M. Dunstan, did not bat	
F. Trist " " "	
T. Smith " " "	
Extras	8
	232

Bowling : Gray, 10-5-10-0 ; Bissoon Dath, 15.2-4-34-6 ; Allan, 7-1-17-1 ; Trist, 1-0-3-1 ; Smith, 10-2-14-0 ; Willis, 2-0-6-0.

Hospital Information, etc.

GUY'S HOSPITAL AND MEDICAL SCHOOL

The following list of vacancies published in our last issue is repeated for those of our readers who may not have seen it.

Applications are invited for the following appointments to the Junior Staff for the session 1952–53 :—

Medical Registrars	*4
Surgical Registrars	*4
Obstetric Registrars	*2
Genito-Urinary Registrar	1
Orthopædic Registrars	2
Chief Assistant, Department of Anæsthetics	1
Anæsthetic Registrar	1
Hæmatological Registrar	1
Chief Assistant, Neurological Department	1
Neurological Registrar	1
Assistant to the Director of York Clinic	1
Registrars to Department of Psychological Medicine (W/T)	*3
Registrars to Department of Psychological Medicine (P/T)	2
Registrar to B.M.R. and Endocrine Department (P/T)	1
Radiotherapy Registrar	1
Chief Assistant to Ear, Nose and Throat Department	*1
Registrar to Ear, Nose and Throat Department	1
Registrars, Department of Diagnostic Radiology	*1
Registrars, Department of Physical Medicine	*2
Thoracic Surgical Registrar	1
Dermatological Registrar (W/T)	1
Dermatological Registrar (P/T)	1
Pædiatric Registrar	1
Ophthalmological Registrars (P/T)	4
Registrar, V.D. Department (P/T)	*1
Junior Medical Registrars	3
Registrar to Evelina Hospital	1
Chief Assistant, Department of Clinical Pathology	*1
Registrars, Department of Clinical Pathology (One with duties at the Evelina Hospital)	4
Anatomy Department { Junior Lecturers (W/T)	4
Anatomy Department { Junior Lecturer (P/T)	1
Physiology Department—Junior Lecturers	2
Morbid Anatomy & Histology Department—Junior Lecturers	2
Junior Lecturer and Gull Student	1
Bacteriology Department—Junior Lecturers	2
Chemical Pathology Department—Junior Lecturers	2
Assistant to the Director of the Department of Medicine	1
Junior Assistant (Research) to the Director of the Department of Medicine to work in connection with the Department of Pharmacology in therapeutic research	1
Tutor in charge of the Preliminary Clinical Period Class	1
Junior Assistant to the Director of the Department of Surgery	1
Assistant to the Director of the Department of Obstetrics (P/T)	1
Assistant to the Director of the Student Health Service	1

* One of these posts will be under the exchange scheme for Senior Registrars, with duties at Guy's for the session 1952–53.

EXCHANGE SCHEME

Applications are invited for the following vacancies for **Senior Registrars.** The holders of these appointments will be expected to spend a minimum of one, and not more than two, years in a Regional Hospital as indicated on an exchange basis during a four-year tenure of the post. Preference will be given to applicants who have held an appointment as Registrar in the specialty at a Teaching Hospital and the appointments will be subject to annual review.

General Medicine, Bromley & Farnborough Group	1
General Surgery, Bermondsey & Southwark Group	1
Diagnostic Radiology, Bromley & Farnborough Group	1
Physical Medicine, Bromley & Farnborough Group	1
Pathology, Lewisham Group	1
Psychological Medicine, Bexley Group	1
E.N.T. Surgery, Bromley & Farnborough Group	1
Obstetrics, Bromley & Farnborough Group	1
Venereology, Seamen's Group	1

Note.—The posts in Diagnostic Radiology and Physical Medicine will be held simultaneously at Guy's and Bromley and the post in Venereology simultaneously at Guy's and Seamen's.

SENIOR REGISTRARS

The following posts are available to **Senior Registrars** at the Hospitals mentioned for one year, with the exception of S.E. Kent Group which will be for two years. These posts are not in the exchange but the holders may be eligible to apply for one year as Senior Registrar at Guy's on completion of this appointment.

General Medicine, Bromley & Farnborough Group.
Psychological Medicine, Bexley Group.
Pathology, Lewisham Group.
Diagnostic Radiology, Bromley & Farnborough Group.
Physical Medicine, Bromley & Farnborough Group.
General Surgery, Bermondsey & Southwark Group.
General Surgery, S.E. Kent Group.
Obstetrics, Bromley & Farnborough Group.

Forms of application, obtainable from the Superintendent's Office and the Medical School Office, should be lodged in one of these offices not later than **17th June, 1952.** All appointments to start on **1st October, 1952.**

GUY'S HOSPITAL

Applications are invited for the post of **Resident Anæsthetist.** The appointment will commence on 4th July, 1952, and will be for a period of six months in the first instance. Grade : House Officer 3rd six months, that is, £450 per annum, less £100 per annum for board and lodging.

Applications should be lodged with the Superintendent on or before **24th June, 1952.**

APPOINTMENTS

John Gordon, D.A., appointed Consultant Anæsthetist to the Rowley Bristow Orthopædic Hospital at Pyrford, Surrey.

Hujohn Ripman, F.R.C.S., M.R.C.O.G., to be Consultant Obstetrician and Gynæcologist in the East Suffolk and Ipswich Area as from August, 1952.

Mr. W. A. Vale has been appointed to serve on the Conservation Materials Committee of the British Standards Institution.

UNIVERSITY OF LONDON RECOGNITION OF TEACHERS

The following have been recognised as teachers of the University in the subjects indicated in parentheses.

Institute of Ophthalmology : Dr. L. C. Thomson (Physiology).

Charing Cross Hospital Medical School ; Dr. W. E. D. Evans (Pathology).

ROYAL COLLEGE OF SURGEONS OF ENGLAND

F.R.C.S.

Sir William Kelsey Fry has been admitted to the Fellowship, having been elected as Practitioner of 20 years' standing.

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS

Mr. G. F. Gibberd has been elected to the Council as one of the representatives of the Fellows.

Fellowship

J. W. Schabort

Membership

Victor Drosso

PASS LIST

UNIVERSITY OF LONDON

Third (M.B., B.S.) Examination for Medical Degrees

April, 1952

Honours

B. L. Mallett (distinguished in Obstetrics and Gynæcology).

D. C. Wilkins (distinguished in Hygiene and Forensic Medicine).

Pass

R. K. Allday	D. A. F. McGill
G. T. Balean	I. Macmillan
S. S. Barker	G. A. Marin
P. K. M. Barrett	W. A. Matheson
F. L. Bateman	Eleanor Morrison
E. W. G. Birch	Joan M. Newton
D. G. Bluett	C. H. Opie
L. H. Brearley	Millicent J. Pentney
R. W. Brotherwood	H. S. Reeve
C. V. Bullen	D. S. Robinson
T. K. H. Burnham	J. E. Scriven
E. E. Clapham	W. Sewell
P. B. Counsell	F. C. Shelley
J. R. Deacon	G. B. Skinner
J. Dennis	A. J. Smith
J. Eastwood	R. C. Smith
P. S. Elias	E. C. Spencer
Elizabeth Fincham	A. E. Strigner
D. C. Harris	C. H. W. Warne
E. G. Haydon	R. S. Wells
Josephine C. M. Heylen	H. R. Whitaker
B. K. Higgins	Ingeborg R. Wiernik
B. G. Jackson	P. A. Zorab
P. E. Kapff	

SUPPLEMENTARY PASS LIST

Part I

V. Ainsworth	D. J. Green
B. J. Cremin	P. N. A. Holden
J. K. H. Culverhouse	E. N. McKenzie
W. F. T. Davies	F. G. M. G. Myer
L. M. Davis	J. F. Pritchard
E. C. Dawson	F. E. N. Roper
H. P. Duke	R. J. Shephard
J. Ernsting	S. D. H. D. Wallis

Part II

C. P. B. Brook	D. J. Green
P. J. Cook	E. R. Herst
F. C. Emberton	P. N. A. Holden
L. L. Emery	A. V. Large
A. I. Fram	E. A. Murray
A. G. E. Fung-a-Fat	Joyce D. Waye

Part III

A. G. E. Fung-a-Fat F. L. D. Steel

UNIVERSITY OF LONDON

Postgraduate Diploma in Psychological Medicine

March, 1952

W. K. Schnarr

Ph.D.

(for internal students)

Faculty of Medicine (Non-Clinical)

April, 1952

J. O. Laws, M.R.C.P.

SOCIETY OF APOTHECARIES OF LONDON

Final Examination

May, 1952

Medicine

K. B. Bender *C. P. B. Brook

Midwifery

J. H. S. Battey J. G. Lymbery W. A. St. John

*Has completed the examination

NOTICE

There will be a meeting of the Guy's Theatre Club on Wednesday 25th June, in the Physiology Theatre, at 1 p.m.

CHANGES OF ADDRESS

D. M. Carnegie, M.B., B.S., D.A., 112a, Harley Street, W.1. Tel.: Welbeck 3307 (Day and Night.)

J. Luder, M.D., 86, Bramley Road, Oakwood, Southgate, N.14. Tel.: Barnet 5311.

D. J. Rudman, M.B., B.S., 160, Percy Road, Whitton, Twickenham, Middlesex. Tel.: Popesgrove 7004.

BIRTHS

ANDERSON.—On 6th June, 1952, at Nuffield House, to Pamela (née Chitty), wife of Kevin Anderson, M.D., of 18, First Street, Chelsea, S.W.3—a daughter (Maureen).

CAMPION.—On 29th April, 1952, at Nicosia, Cyprus, to Joan (née Ware) wife of Peter C. S. Campion—a son (Anthony Rowland).

GOUGH.—On 3rd June, 1952, at 61, The Drive, Hove, to Nancy (née Utton), wife of K. M. Gough, M.B., B.S.—a daughter.

MACVICAR.—On 6th June, 1952, at The Romilly Nursing Home, Cardiff, to George and Susan (née Froggatt)—a daughter.

TALBOT.—On 5th May, 1952, at Cambridge, to Margaret (née Hooper), wife of C. H. Talbot, M.B., B.Ch. — a son (David Edward).

MARRIAGE

LUDER—LISHNER.—On 9th March, 1952, in London, Joseph Luder, M.D., M.R.C.P., D.C.H., to Shirley June Lishner.

DEATHS

BASCOMBE.—On 25th May, 1952, peacefully, at a nursing home, Ernest Dare Bascombe, L.D.S., R.C.S.(Eng.), of Culverley Cottage, Brockenhurst, and late of Melford Lodge, Bournemouth, aged 82.

ROSEN.—On 2nd June, 1952, suddenly, Leon Alexander Rosen, Surg.-Lt. (D), R.N., 29, Cleveland Gardens, N.W.2.

WALES.—On 3rd May, 1952, Edward Garneys Wales, M.A., B.A., M.B., B.Ch., of Southwold, Suffolk.

Eds. { P.A.Z. / E.E.D.T.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1668 28*th June* 1952 *One Shilling*

PASSIM

IN recent years the problems of old age have received considerable attention. By comparison, those of retirement have received much less. In a country, however, where the proportion of elderly people is steadily increasing it seems to us that the problem of when a man should retire deserves greater consideration.

Although it is well recognised that we all enjoy a greater expectation of life than did our equals in age of fifty years ago, there seems a surprising reluctance nevertheless, to accept the natural corollary of this—namely, that men and women are capable of leading active lives longer than they used to do. What constituted old age in 1910 is unlikely in 1970 to seem much more than middle age, yet the retiring age in many trades and professions shows few signs of being equally deferred. In consequence the best and most fruitful years of many people's lives stand in danger of being wasted.

It is perhaps with this use of "age" as the sole criterion of a man's fitness that we disagree most. While there are many men of over seventy years whose minds are still receptive of ideas and whose bodies are still agile, there are many under fifty whose inclination and ability to work has declined with the hardening of their arteries—so much is a commonplace. The age of maturity seems, indeed, to vary from trade to trade and profession to profession, as much as it does from man to man. Particularly in those walks of life where judgment or creative work draws upon experience does a man's prime come late : Vaughan Williams, Bertrand Russell, Sherrington, Shaw, Darwin, are a few of the many names which come to mind. What, then, is the virtue in taking sixty, seventy or any other arbitrary figure as the age at which a man must retire ?

Too early retirement of an active man constitutes a loss to the community. To the man himself the effects may be disastrous. The mind, quite as much as the body, requires time for adjustment. Sudden withdrawal of an all-consuming task offers no time for adjustment, and impairment of health in the first year or two following retirement is a common sequel.

It is not easy to find a practical solution but it seems to us that the process of retirement might be made more gradual, arduous tasks and heavy responsibility being slowly shifted to younger shoulders and making way for newer and quieter interests. In this way the wisdom of years might still be available to others and the shadow of retirement removed from the "superannuated man".

The portrait of Sir William Kelsey Fry, painted by Mr. Anthony Devas, will be presented in the Physiology Theatre, Medical School, Guy's Hospital, at 12.30 p.m. on Tuesday, 22nd July.

Will all those subscribers who wish to be present kindly apply to Miss Jordan, Medical School Office, Guy's Hospital, London, S.E.1. The number of tickets available is limited.

The Guy's Hospital Reports

A clinical lecture delivered on March 10th, 1952.

By R. C. BROCK, M.S., F.R.C.S.

LADIES AND GENTLEMEN,—No doubt you wonder why I choose to lecture to you on this subject, but I do so for several reasons. When you come to Guy's as a student and can call yourself with some measure of pride a Guy's man or a Guy's woman, you are privileged to share in the inheritance of the great traditions of Guy's and you should know that the privilege of tradition carries with it certain responsibilities. One of these responsibilities is that you should try to acquire at least an elementary acquaintance with some of the substance and fact of this tradition so that you may understand and respect it. The *Guy's Hospital Reports* forms part of this valuable heritage.

In addition to having a general acquaintance with the *Reports* it is also good for you to know something about the articles that have appeared in it during its long life of more than a century. Even though much of this knowledge may prove of little value to you in the qualifying examinations, it should be good for your souls; that is, if you consider you should have a soul above the bare essentials of a purely vocational training. Certainly those of you who seek to gain even a modicum of medical or surgical scholarship should acquaint yourselves with the many classic and historic contributions in the *Reports;* who knows, in the higher examinations you may even have an opportunity of profiting greatly by your knowledge of the work and writings of former Guy's men.

The time is also opportune for a lecture on the *Reports* as the 100th volume has recently been completed and published, and last month saw the first quarterly part of Volume 101.

I also hope to interest some of you sufficiently for you to become regular subscribers; an act which would profit not only yourselves but also the *Reports*.

History

You know, of course, that Guy's Hospital was founded in 1721 by Thomas Guy, who was a Governor and benefactor of St. Thomas's Hospital, which used to be situated to the east of the Boro' High Street and north of St. Thomas's Street across the road from Guy's. The old Queen Anne houses set back from the roadway used to be the dwellings of the various officials of St. Thomas's and the very fine doorway just east of the chapter house is in the position of a former sidegate of St. Thomas's and was used by the students of the two hospitals in passing from one hospital to the other, when the medical schools were united and lectures and classes were integrated between the two. This entrance dates back at least to the time of King John (1215), and St. Thomas's was in solitary dignity from the latter part of the 12th century until the opening of Guy's in 1725. Guy was not content with his small benefactions to St. Thomas's but decided to build his own hospital and chose a nearby site, which he rented from St. Thomas's. Whether he was right or wrong in building so near the other hospital I will not now discuss.

Throughout most of the 18th century the two were closely joined as the United Borough Hospitals, but towards the end of the century a new and independent spirit began to form at Guy's and Guy's men with a special Guy's spirit began to appear.

In 1798 three of these, Astley Cooper the surgeon, Haighton the physician and obstetrician, and Babington the physician, published a volume of reports of cases which was called *Medical Reports and Researches*. Nothing more came of this for the time being, although it may be considered the precursor of the *Guy's Hospital Reports*. The first quarter of the 19th century, however, saw the rapid rise of Guy's to a pre-eminent position led by perhaps the greatest of our worthies, Astley Cooper, and followed by an array of talent which included Addison, Bright, Hodgkin and many others.

During this quarter of a century many brilliant and classic contributions were published by Guy's men, including all Astley Cooper's great works and the original papers by Richard Bright on the disease named after him.

An uneasy situation developed between the two hospitals, undoubtedly aggravated by a certain amount of pique on the part of the St. Thomas's staff for the vigorous and striking achievement of this upstart institution across the street. Finally, the medical schools separated in 1825, and the Guy's Hospital Medical School was formed as a separate institution. A few years later the last vestige of friendship between the two was broken when the clinical practice of the two hospitals was completely severed by St. Thomas's prohibiting Guy's students from entering their buildings.

The rivalry now increased and, unfortunately for St. Thomas's, the ascendancy of Guy's became more and more marked and the decline of St. Thomas's more evident until it was finally checked by the removal of the hospital to its present site on the embankment in the 1860's, when the coming of the railway compelled it.

From this preliminary explanation you may better understand how it came about that when in 1835 St. Thomas's published a volume of *Reports*, Guy's immediately followed suit in the next year with the *Guy's Hospital Reports*. This origin is given by Sir Humphrey Rolleston in a short note in the centenary number of the *Guy's Hospital Reports* (Vol. 86, 1936), in which he records a remark in the *London Medical Gazette* for 1836, " with which hospital the idea originated we know not. The gentlemen of St. Thomas's appeared first in the field ; and we have heard that on this their rival neighbours immediately took the alarm and got up an opposition *Reports*."

Be that as it may, the St. Thomas's volume was an isolated effort until 1870, when a second series was begun and continued until 1939 ; since the war two further volumes have appeared. The Guy's *Reports*, however, did not fade away, but, reflecting the ability, energy and determination of its staff went from strength to strength.

During the 19th century there were odd gaps of a year here and there and in the 20th century the first World War stopped publication from 1915-1919 ; hence the fact that in the centenary year, 1936, only Volume 86 had been reached. The 100th volume was completed on time in 1951, a fact of which we, as a Hospital and Medical School, may be justly proud.

The original intention of the *Reports* was to provide a means of recording and publishing the knowledge and vast amount of clinical and other information gathered in a big teaching hospital.

It is significant and worthy of special remark that in the year 1853, the editor, Dr. Birkett, resigned, being under the impression that the work of the *Reports* had been fulfilled, especially as weekly medical journals had appeared to take its place in the publication of material. At a general meeting of the staff, however, another opinion prevailed and it was decided to continue as before, although a year's delay was unavoidable. The two new editors were Poland and Wilks.

For the first 12 volumes the *Reports* was published twice yearly ; it then appeared as a single annual volume up to and including the first issue after the first World War (1919). The two editors at that time, Dr. H. French and Mr. F. J. Steward, also produced a special *War Memorial* number in 1922, which contained, in addition to much valuable general information, important articles by members of the staff on their experiences and work during the war. Notable among these was Sir Arthur Hurst's article on *The war neuroses and the neuroses of civil life*.

In the preceding year (1921), however, an important and fundamental change had been made. At the suggestion of Hurst a new series was begun in which the *Reports* became a quarterly journal ; Hurst was appointed editor. I am informed on good authority that the life of this bold experiment was expected to be short ; in fact, it did not peter out but has continued until now, i.e., a period of 31 years.

Things inevitably became critical during the second World War and on a number of occasions it was necessary to publish two quarterly parts together, but the basic pattern of a quarterly journal was maintained although, unfortunately, publication fell as much as 18 months behind time. This delay has been remedied and we have been able to begin Volume 101 on time with the first two quarterly issues for 1952 already published.

In 1940 an attempt was made to stop publication, based on the fact that it became necessary to raise the subscription once more to two guineas from the thirty shillings to which it had been lowered a few years before. Sir Arthur

Hurst had been in favour of this reduction as the *Reports* had been making a profit and he felt an increase in the number of subscribers would follow. Actually, this was not so and the small financial reserve of the *Reports* had been swallowed up by the time of the outbreak of war. Fortunately, this movement to stop publication did not succeed and the Reports continued to appear, even though at times the volumes were slender.

This policy of continued publication has fully justified itself. During the war a large number of extra subscriptions was taken out by the Government under the Lend-lease agreement and the *Reports* found its way into the mess libraries of many United States and other units stationed in this country and in Europe.

It is often easier to keep a thing going than to restart it once it has stopped. If the *Reports* had ceased publication it might well not have begun again. The *St. Thomas's Hospital Reports*, which ceased publication in 1939, has appeared only twice since, and the *St. Bartholomew's Hospital Reports* (which incidentally began in 1865) has not been resumed since it was suspended in 1939.

It has been said, and with some reason, that the publication of individual hospital reports is an anachronism in view of the present plethora of weekly, monthly and quarterly journals of every type. This may be so and it is certainly a sound argument against deliberately beginning a new hospital journal or reviving one long defunct. On the other hand, the position of the Guy's *Reports* is unique amongst all other hospital journals as a result of its long, virtually unbroken, tradition. It would be a bold and foolish son of Guy's who deliberately advocated or aided the discontinuance of a journal so thriving, so important, so unique and of such great value to the hospital and to everyone connected with the hospital. Let us make no mistake about it, the *Reports* has done more than anything else to carry the name and reputation of Guy's throughout the world, and all Guy's men and women profit from its work whether they take any active part in contributing or subscribing or whether they are completely neglectful or even mildly hostile.

It serves, or should serve, as a great stimulus to all who are working at Guy's and is a ready and helpful means of publication of many good articles written within the hospital that otherwise might not see the light of day. I particularly have in mind some of the excellent medical theses that we have been able to publish in recent years. From its length and nature it is often difficult to secure publication of a thesis in the more widely circulated journals, but it is often a considerable loss, and certainly a disappointment to the author, if a good thesis is not printed. I mention as examples the contributions of Brinton on *Haematology in congenital heart disease*, Maclean on *Pleurisy*, and Baker on *Liver function and jaundice*.

In the *Guy's Hospital Reports* we have a possession of great value and one that should be a source of great pride and of great strength to us. Worthy possessions have, however, to be constantly watched and guarded. It is, I think, important that the *Reports* should have a sufficient degree of independence to enable it to carry on, if necessary, through a few years of possible neglect or hostility. It should not be possible for it to be harmed by temporary adverse opinions or counsels. I have sufficient faith in the good sense of Guy's to know that hostility or indifference would not last for long and that the *Reports* would come once again into its own. If we did not have the wit and wisdom to prevent or correct its neglect, then we should deserve to suffer its loss.

A review in the British Medical Journal in 1861 states " Guy's Hospital may justly be proud of such Reports. They bear witness to the fact that the immense field of observation met within its wards is not allowed to run to waste." It is, indeed, a foolish thing if one prepares a field, plants and cultivates a crop and then omits to gather a part of the harvest.

At the beginning of each present issue of the *Reports* you will find a quotation from a textbook of surgery published by Warner, one of the earliest of the Guy's surgeons in the 18th century; he remarks in his dedication to the Governors of Guy's Hospital that,

" A hospital is not only an instrument of relief to the distressed who are immediately helped there, but also a means of helping others by furnishing such principles and practice as may improve the art of surgery and thus render the benefit more general."

Editors

The *Reports* has been fortunate that an editor or editors, willing to give devoted service, has always been available. There have been in all 22 editors or assistant editors; up to 1921 there were always 2 or more co-editors, except for 3 volumes. The amount of service rendered is shown by the following list of times served.

A. Poland	17 years.
F. J. Steward	16 years.
G. H. Barlow	13 years.
S. Wilks	11 years.
H. French	11 years.

The longest term of editorship, 19 years, was served by Sir Arthur Hurst from 1921-1939. There is little doubt that Hurst was our greatest editor and that the *Reports* owes more to him than to anyone else. Between the two wars the *Reports* was, in great part, a personification of Hurst himself. I had the privilege of joining Hurst as assistant editor in 1936 and became full editor in 1939. In 1948 Dr. Mann joined me as associate editor and so once more the *Reports* is under a dual editorial control; in addition, of course, to the members of the editorial committee.

The survival of the *Reports* depends on three things. First the existence of an editor or editors prepared to accept the privilege of serving the hospital in this capacity. Let us hope that we shall always be able to find a member of the staff able and willing to take this on. Second, a sufficient number of contributors who will submit good material. Third, the subscribers who will buy the published numbers.

No one can publish and no one wishes to buy or receive blank pages, and so it is clear that the second of these, the contributors, is the most important. I do urge all of you to remember that great good can accrue both to you and to others if you will try to cultivate the habit of expressing your thoughts and recording your experiences in writing. There is no doubt that, apart from its other uses, the practice of writing and recording serves as an important part of your postgraduate training; not infrequently excellent articles have been furnished for the *Reports* by senior students. Most house officers and certainly all registrars should be alert to possible opportunities for making some report of their observations and work.

The Material and Contributions within the Reports

The Guy's *Reports* is a gold mine of clinical, scientific, historical and biographical information and, if you are wanting to look up the literature of any subject, I advise you first to consult the *Reports*, for you will surely find there is something on your subject.

I intend to present a number of the features which it should be of interest and value for you to know about. Clearly, it is impossible for me to deal comprehensively with the contributions in a hundred volumes in one short lecture, but I shall hope not to omit mention of any really outstanding articles.

I have found great help in making a survey of the *Reports* material from the analysis published by Sir Samuel Wilks in his *Biographical Reminiscences* (1911) of the contents from 1836-1885; and the later survey by Sir William Hale White from 1885-1908, published in two parts in Volume 81 (1931) bringing the epitome up to Volume 62. It is hoped that these two surveys will be followed by a final one covering the period 1909-1951, up to the end of the 100th volume. Clearly a labour of love for some one.

The *Reports* contains many classical articles by the giants of the past: Addison, Bright, Astley Cooper, Gull, Wilks, Babington, Aston Key, etc. In addition, there are some articles, the importance of which at the time was not appreciated and, indeed, even today are too little known.

Astley Cooper

I begin with his contributions because, apart from his greatness, he was the most senior and distinguished contributor to the early numbers of the *Reports*. Most of his great publications had already appeared before 1836; in fact, he had already retired from the active staff in 1825, eleven years before. The first volume contains a paper characteristic of his skill and of his patient clinical follow-up and ultimate post mortem of an important case, even though many years may have elapsed since the operation. On the same afternoon in June 1808, Astley Cooper ligated the common carotid artery and also the external iliac artery for aneurysm. Both these cases were followed up to autopsy 18½ and 13 years later and a full report of the findings appears in this first number of the *Reports*. The beautifully injected and prepared specimen of the collateral circulation from the external iliac case is still preserved in the Gordon Museum. A full account of Astley Cooper's great contributions to arterial surgery is to be found in the special Astley Cooper number published in 1941 on the occasion of the centenary of his death.

In this same number Astley Cooper also writes on the thyroid gland, but somewhat more remarkable is an article on the thyroid gland by Thomas Wilkinson King, in which he clearly ascribes to it the rôle of producing an internal secretion. Hale White, writing of him in Volume 86 (1936), describes him as the "father of endocrinology." He was one of the many brilliant Guy's men of great promise who, unfortunately, died young and were prevented from making even greater contributions.

Bright

Bright's first report on the disease that bears his name was published in a two-volume *Reports on medical cases* in 1827 and 1831, before the birth of the *Reports*. His most extensive account of the disease, however, occurs in Volume 1 and the later numbers contain numerous articles by other authors on the disease and its many varying aspects, culminating in the Bright Centenary volume of 1927 (Vol. 77).

In later years one must mention the series of biochemical papers by Osman, *Studies in Bright's disease*. In Volume 71 (1921) Hale White makes an important survey in his article *Richard Bright and his discovery*.

The story of the elucidation of the confused and complex picture of what was called *Bright's disease* is peculiarly associated with Guy's men and especially, in addition to Bright, Sir William Gull and Dr. Mahomed. Bright's contribution was carried one stage further by Gull, who described and differentiated the condition we now know as essential hypertension. Dr. Mann gives an admirable account of this in Volume 95 (1946) of the *Reports* in describing a specimen in the Gordon Museum (old No. 1613) of a large heart and a small contracted kidney used by Gull in a clinical lecture at Guy's and published in the British Medical Journal in 1872. Gull states the specimen is one of especial historical interest, as it was put up under Dr. Bright's own direction. He then states "I cannot but look upon it with veneration, but not with conviction. I think, with all deference to so great an authority, that the systemic capillaries and, had it been possible, the entire man, should have been included in this vase, together with the heart and kidneys; then we should have had, I believe, a truer view of the causation of the cardiac hypertrophy and of the diseased kidney."

The morbid anatomy of essential hypertension had now been described; its clinical recognition depended upon the brilliant discoveries of Mahomed, who measured the blood-pressure by means of a specially designed sphygmograph. In 1881 (Vol. 40) he wrote a paper in the *Reports* on *Chronic Bright's disease without albuminuria*, in which he completed the story by recognising that high blood-pressure might precede anatomical changes in the vessels; he also appreciated the importance of the constitutional factor.

Dr. Ryle, writing in the Bright Centenary number (Vol. 77, 1927) states, "we may, I believe, justly claim that the whole of the story of high blood-pressure, including the little we know of its aetiology and the great deal we know of its consequences, was written at Guy's between the years 1827 and 1881."

The next number of the *Reports* will contain an admirable biography by Dr. Batty Shaw of Dr. Mahomed, the last of this great triumvirate.

In the first number of the *Reports* is an account by Bright of epileptic attacks occurring in association with a disease of the cerebral vessels which was later more clearly recognised and described by Hughlings Jackson and is now known as Jacksonian epilepsy. The cerebral disease itself was also correctly recognised and described later by Wilks as syphilitic pachymeningitis.

Addison

Addison recorded the original description of the disease of the suprarenals named after him in a monograph in 1855 and not in the Guy's *Reports*. The *Reports*, however, is closely associated with the description of this disease and Rolleston (Vol. 86, 1936) writes, " General acceptance of the authenticity of Addison's Disease of the suprarenals, described in his monograph of 1855, was also in large measure due to the loyal exertions of Wilks, who collected cases and wrote many articles on the subject, including two in the *Guy's Hospital Reports*." Wilks described further cases in 1859 (Vol. 20), 1862 (Vol. 22), and 1865 (Vol. 26). Conybeare and Millis (Vol. 74, 1924) reviewed 29 proven cases treated at Guy's between 1904 and 1923, and finally Houston and Price (1948, Vol. 97, 254) have contributed an excellent and important review of all the cases, 34 in number, treated at Guy's from 1924-1948.

Rolleston, writing of Addisonian or pernicious anaemia says, " The ' idiopathic ' anaemia, afterwards called ' pernicious ' and lately Addisonian anaemia, described by Addison in 1849 and again in his monograph on suprarenal disease, has been further dealt with in some 20 articles by various workers in the *Reports*." Hurst was notable in stimulating interest in pernicious anaemia, and in Volume 72 (1922) we find a symposium of 9 papers on this disease.

In 1841 (Vol. 6) Babington, quoting observations made by Addison, describes for the first time the relationship between chorea and disease of the heart and pericardium.

Wilks tells us that Addison had lectured for many years on " caecitis," four cases of which, all cured, were reported in Volume 8, 1853. It is enlightening and somewhat salutary to read Wilks' comments on this disease in which he writes (1911), " This term (i.e. caecitis) has been changed for typhlitis or perityphlitis, and in more recent years for appendicitis. This designation, besides being uncouth, is eminently bad, because it is always assumed that every inflammation or abscess in the neighbourhood of the caecum is due to disease of the appendix. No better illustration could be given of this than the case of his late Majesty King Edward. In this case the surgeon had not long before made the statement that it was only about fifteen years before that time that appendicitis had been recognised. Now, as a matter of fact, Dr. Addison had lectured upon it for many years, and in his published lectures for 1836 . . . he uses the word ' perityphlitis ' . . . and states that the most usual cause of the disease is a calculus in the appendix. Showing how preferable the term which he gives is to that of appendicitis is the fact that the surgeon, finding that the king had an abscess and no trace of appendix, was forced to use the term ' typhlitis ' in his bulletin. The appendix might, however, have been originally the source of the trouble."

Hale White writes an excellent and useful biography of Addison in Volume 76 (1926) of the *Reports*.

Hodgkin

Hodgkin was the first curator of the Museum at Guy's and Professor of Pathology. Unfortunately, he failed to be elected as assistant physician to the Hospital and resigned in 1837. He died and was buried at Jaffa in 1866. There is no doubt that the hospital, and doubtless medicine as well, suffered a great loss by this estrangement and exile of such a great man.

In 1878 (Vol. 38) Wilks mentions a number of unpublished papers by Hodgkin, which he wrote 40 years before, when he retired from Guy's. Hodgkin placed in the Guy's museum the first specimen preserved showing

"trichina spiralis." He speaks of the lesions being found by his assistant, H. Peacock, and when later a similar condition was found in the dissecting room by John Hilton, the lesions were referred to Professor Owen who gave them the name of *Trichina spiralis*.

In 1829 Hodgkin read a paper before the Hunterian Society on *Retroversion of the aortic valves* and described the ventricular hypertrophy, the double diastolic and systolic bruit, and the pulse thrill that resulted. The specimen which he used to illustrate the paper was placed in the Guy's museum. It was not until 1832 that Corrigan wrote his paper on *Inadequacy of the aortic valves*.

Hodgkin's description of the disease to which his name is attached, and on which most of his posthumous fame rests, appeared in *Medico-Chirurgical Transactions* in 1832, just before the Guy's *Reports* appeared. In 1856 (Vol. 17) Wilks reported a series of cases of lardaceous disease, some of which corresponded to those described by Hodgkin in 1832, and in 1865 (Vol. 26) in a second paper, he not only acknowledged Hodgkin's claim to first description but generously proposed the eponym.

The story of Hodgkin's disease and the Guy's *Reports* is carried one stage further in 1936 (Vol. 86) when Fox investigated microscopically the tissue of the original lesions described by Hodgkin in 1832 and verified the primary diagnosis is correct by modern criteria.

Taylor

Alfred Swaine Taylor was appointed lecturer in medical jurisprudence at Guy's Hospital in 1831, only 3 years after qualification, and held this post for 47 years. His was the first course on the subject and many leading members of the bar attended his teaching. In volume 2 (1837) of the *Reports* he contributes the first of a series of remarkable and classic articles, chiefly on poisoning, but also on other medico-legal matters. It is difficult to understand why Wilks almost ignores his many contributions in his survey of the *Reports* material and contents. Taylor contributed in all 70 articles to the *Reports*, the last three of the series appearing in volume 34 (1874).

One of these last articles was on *Tattoo marks as evidence of personal identity*, as illustrated by the Tichborne case. He was called to give evidence in most of the famous trials of his time and writes on a number of these, such as the Palmer trial (1856, vol. 17).

He was a prolific writer and his *Manual of Medical Jurisprudence* (1842), *Poisons* (1848), and *Principles and Practice of Medical Jurisprudence* (1865) were standard works which went through many editions.

In recent years this great medico-legal tradition has been revived by Dr. Keith Simpson who has contributed some notable articles on the problems of identification in crime.

Gull

Gull's great contribution in the description of *Arterio-capillary fibrosis* has already been mentioned. To him also we owe the first description of *anorexia nervosa*, to the significance of fatty stools and mesenteric gland disease (1855, Vol. 6), and to "a cretinoid condition in adult women," a disease we now call myxoedema.

Wilks

The *Reports* owes much to Sir Samuel Wilks, who is probably next in order to Hurst as a great editor. He seems to have been chiefly responsible for the continuance of publication when cessation was threatened in 1853. His invaluable survey of the material in the *Reports* between 1836 and 1885 in his *Biographical Reminiscences* (1911) has already been mentioned. In addition he has ennobled the numbers of the *Reports* with several classic contributions.

In 1853 (Vol. 4) he noted the association between aortic aneurysm and syphilis, and 10 years later (Vol. 24, 1863) he writes *On the syphilitic affections of internal organs ;* of this he himself says, "I regard this as the most noteworthy and original article which it has been my good fortune to write, having obtained

for me one of my highest honours." Up till then syphilis had been considered to be only a superficial disease. Wilks, as a result of post mortem study, revealed that the internal organs were also affected ; notably the liver, gummatous disease of which he was the first to describe. He also noted gumma of the lung and syphilitic pachymeningitis and recognised the true nature of the disease of the meninges in Bright's earlier cases, in Volume 1 of the Reports, of Jacksonian epilepsy. Perhaps even more important, he described syphilitic arteritis and how it differed from ordinary atheroma. His contention that syphilis affected more than the external parts of the body met with considerable adverse criticism, which he himself states turned out well for him for it resulted in his being made a Fellow of the Royal Society.

In 1855 (Vol. 16) he describes a condition as *leucocythaemia*, which is presumably the one now known as lymphatic leukaemia. He also claims that he was the first to describe alcoholic peripheral neuritis (which he termed *alcoholtc paraplegia*) in a course of lectures at Guy's.

He was the first man to describe bacterial endocarditis, which he does in 1870 (Vol. 30) under the name *Capillary embolism or arterial pyæmia.*

Constrictive pericarditis is commonly known as Pick's disease, but as Guy's men we should know of the prior claim of both Wilks, who wrote of it in 1871 (Vol. 31) and of another even earlier Guy's man, Chevers.

Chevers

Several important papers were written by Chevers, but his most important one, which contains the clear clinical account of constrictive pericarditis, was in Volume 7 (1842). This paper, together with that by Wilks (1871), was reprinted in Volume 85 (1935) in a short symposium in which Paul White of Boston states that, although Pick's emphasis of the disease in 1896 has led to it being named after him, it was " clearly recognised by two Englishmen, Chevers and Wilks, who worked at Guy's Hospital and wrote their accounts of this disease in the *Guy's Hospital Reports.*" " Lower, in 1669, reported cases and introduced the term ' callous pericarditis.' And, indeed, many centuries before that (about 160 A.D.) Galen, the canny Greek physician in Rome, was cognisant that pericardial disease must interfere with the proper action of the heart. But so far as I have been able to discover, Chevers and Wilks were the first adequately to recognise and describe the pathogenesis of the clinical signs and symptoms of chronic constrictive pericarditis."

Cooper Forster and Some Others

In 1858 (Vol. 19) Cooper Forster describes the first case of gastrostomy to be done in this country ; the specimen was preserved in the Gordon Museum for nearly a century, but has recently been thrown away. In 1860 (Vol. 21) Durham writes an interesting article on the *Physiology of sleep*, and in 1870 (Vol. 30) we find an account of the first use at Guy's of the clinical thermometer. In the following year (Vol. 31) Fagge differentiates between and points out the significance of systolic and presystolic mitral bruits which up to then had not been appreciated. In 1873 (Vol. 32) Fagge also describes a case with a continuous murmur which he showed at autopsy to be due to a persistent ductus arteriosus. In 1875 (Vol. 35) Moxon writes about several cases of *Insular sclerosis of the brain and spinal cord.* Two of the cases, both of young women, were the first to be described in this country, although others had been previously described on the Continent. Presumably this is the condition now known as disseminated sclerosis.

Arbuthnot Lane

In 1886 (Vol. 43) Arbuthnot Lane contributed his first articles for the *Reports* based on entirely original observations he had made when working as a demonstrator of anatomy ; these observations were to show that the skeleton is profoundly modified by occupation and that many alterations, especially in the bony parts of joints, commonly thought to be due to disease, were really caused by occupation. In 1887 (Vol. 44) he follows with an article entitled *Causation, pathology and physiology of several of the deformities which develop during young life.*

Starling and Hopkins

In 1890 (Vol. 47) a very short paper on *The urine in a case of phosphorus poisoning* is historically of great interest, for the two authors were E. H. Starling and F. Gowland Hopkins; Starling was then demonstrator of physiology; Hopkins, who was then a first year medical student, was to be the discoverer of vitamins and later a President of the Royal Society. The following year, 1891 (Vol. 48), saw further articles by Starling and by Hopkins, one by the latter on *The volumetric determination of uric acid in the urine*, being entirely original and so well-known as to be historical. Baylis also made contributions and Hale White states " any afternoon in the physiology department at Guy's you would meet Hopkins and many others with Starling enthusiastic to criticise and help all of them ! "

Howse

Henry Howse was an early follower of Listerism, and Godlee, in his biography of Lister, writes " almost the only two London surgeons who in early days carried out the treatment thoroughly and efficiently in hospital practice were Howse of Guy's and Marcus Beck of University College." Howse devoted much time and thought to excision of joints under the carbolic spray and with antiseptic technique. He embodies his experiences in an article (Vol. 49, 1892) on *The results of* 130 *cases of excision of the knee.* In no case did sepsis occur.

Hale White

In this 1892 volume Hale White contributes an article on *Prognosis of ascites due to alcoholic cirrhosis of the liver*, based on a study of 34 cases; his experience was like that of others, that the supervention of ascites in cirrhosis means the end is near.

Hale White is another to whom the *Reports* owes a great deal, partly for his contributions, but even more for his great services as editor. He is responsible for numerous valuable biographical studies, amongst which is one of especial interest, *Keats as a medical student* (Vol. 75, 1925).

At the turn of the century we note (Vol. 58, 1904) the monumental article by Cooper Perry and Shaw on *Malignant disease of the stomach*, based on an analysis of all the Guy's cases from 1826-1900. According to Hale White, " to Bellingham Smith belongs the great credit of being the first in this country to describe the illness of pregnant women associated with *B. coli* in the urine "; this he described in the Journal of Obstetrics and Gynaecology, 1905. In the 1906 volume (Vol. 60) of the *Reports*, Bellingham Smith records 12 more examples in *Pyelonephritis as a complication of pregnancy.* Hale White states that it was soon found that the disease existed in other adults than pregnant women.

Hurst

In the volume for 1907 (Vol. 61) Hurst appears on the scene with his classic contribution, *The passage of food along the human alimentary canal;* an original account of work done with the assistance of certain students at Guy's amongst whom were F. Cook and E. G. Slesinger. This was followed in 1910 (Vol. 64) by the equally important *Sensibility of the alimentary canal*, written in conjunction with F. Cook, G. Marshall and E. G. Slesinger.

Throughout his long association with the *Reports* (1907-1939) Hurst contributed many articles on all parts of the alimentary canal, and his work on this system is so well known as to need no special description here. An early paper (1921) may be mentioned in which he draws attention to the importance of the family history in gastric ulcer and duodenal ulcer. His *War neuroses and the neuroses of civil life* in the War Memorial number (1922) has already been mentioned, as also has the appearance of the *Reports* in quarterly form under his editorship in 1921.

The impact of Hurst's editorship on the *Reports* was remarkable; an annual journal was transformed into a virile, original quarterly, which set a standard that has never been surpassed. This was entirely due to his efforts and it can be truly said that the Guy's *Reports* between the two Great Wars was a personification of Hurst himself. In addition to the numerous articles from his

own pen, many were provided from his direct associates, quite apart from those his colleagues produced as a result of his stimulus and request.

The value of his great work as an editor and contributor was recognised by the publication in 1939 (Vol. 89) of a special Hurst number in which several of his more important articles were reprinted. Between 1906 and 1939 he had made 75 contributions himself; sixty-four of these during the 19 years of his editorship. After 1939 he contributed a further six articles, making a grand total of 84; his last article on *Respiratory complications of mega-oesophagus* was in Volume 92 (1943). "We shall not see his like again."

RYLE

Mention of Hurst's work on the alimentary canal naturally leads to that talented writer, clinician and teacher, John Ryle, who contributed many articles beginning with the important physiological studies made with T. Izod Bennet. In 1921 (Vol. 71) we see *Studies in gastric secretion* (p. 42) in which the *Ryle's tube* is described, and *Studies of normal gastric function based on investigation of 100 healthy men* (p. 286).

In 1928 (Vol. 78) he wrote a short article entitled *Angor animi, or the sense of dying* and later he himself suffered from the symptom. In his last illness he wrote an account of his personal experiences and directed that it should be published after his death as a *Postscript*. This was done in 1950 (Vol. 99), at which time his earlier article was reprinted. He remained a great physician to the last.

NICHOLSON

A notable series of articles began to appear in 1922 under the title *Studies in tumour formation*, by that great pathologist, Professor G. W. Nicholson. The series, totalling 20 separate articles, continued until 1938 (Vol. 88). The importance of this magnificent series has been recognised by its recent publication as a single volume (1950) by Butterworth's under the editorship of Professor R. A. Willis.

So many valuable and important articles appeared between the two wars that it is impossible to do proper justice to them. I would like to mention an especially worthy and valuable contribution by an old Guy's man, Hugh Barber of Derby who, in 1937 (Vol. 87), presented the final record of a case of mitral stenosis from trauma which he had observed from its inception in 1915 to death in 1937; a post mortem report completed the clinical study.

I have already noted certain special numbers of the *Reports*, such as those dedicated to the work of Astley Cooper, Bright and Hurst; a feature introduced by Hurst and used by him with effect on many occasions was the presentation of symposia. Noteworthy amongst these were the ones on streptococcus infections, on staphylococcus infections and on infection with *B. coli communis*; a full list of these symposia is given on page 380 of the special Hurst number.

With the completion of the 100th volume of the *Reports* another task falls to the Guy's Hospital Reports Committee, namely the completion and publication of a comprehensive index from 1894 (Vol. 51); since 1893 only an annual index has appeared in each volume. The need for a complete up-to-date index is, of course, very great. We hope that this will appear early in 1953.

I hope that this presentation may have interested you and will also instruct you. I hope that it will have made you realise something of the great academic and clinical tradition of Guy's which I mentioned at the beginning and which is reflected in the *Reports*. I hope that you will read the *Reports*, that you will contribute articles to it and that you will become subscribers if you do not already subscribe. In this connection I would draw your attention to the fact that the subscription is half-price for students, house officers and those still within two years of qualification. I hope that many of you will avail yourselves of this cheaper subscription and that the Committee will thus be encouraged in its work of maintaining the standard of the *Reports* by the knowledge of your active support.

ACADEMIC

June		
		Exhibition. Surgical Department. "Carcinoma of the Breast."
28th	10.00.	Clinico-Pathological Meeting.
30th	1.00.	Dr. Moynahan. Clinical Lecture. "Athlete's Foot."
July		Exhibition. Surgical Department. "Osteoarthritis of the Hip."
1st	1.00.	Mr. Blackburn. Clinical Lecture. "Acute Appendicitis."
4th	1.00.	Sir John Conybeare. Clinical Lecture. "Albuminuria and Glycosuria."
5th	10.00.	Dr. Forman. Skin Demonstration.
8th	1.00.	Sir Heneage Ogilvie. Clinical Lecture.
10th	5.00.	X-Ray Meeting. Gordon Museum.
11th	1.00.	Dr. Kauntze. Clinical Lecture. "Diuresis."

NOTICE

PHYSICAL SOCIETY ESSAY PRIZE

The following subject has been chosen for the Physical Society's Beddard and Laidlaw Prize Essay in 1952 :—

"The Natural History of Mitral Stenosis and its Treatment."

Essays should be from 5,000–10,000 words in length and should be handed in to the Secretaries before 1st October, 1952.

R. E. IRVINE }
P. G. LARGE } *Hon. Secretaries.*

CORRECTION

In his account of the Music Club Concert printed in our last issue, our music critic indicated that Miss Elizabeth Humphries was a member of Guy's. We are asked to point out that this is incorrect. Miss Humphries comes from the Royal Academy of Music. She has kindly given her services to the Music Club on many occasions.

Reviews

The Queen Charlotte's Textbook of Obstetrics. By MEMBERS OF THE CLINICAL STAFF OF QUEEN CHARLOTTE'S HOSPITAL. 8th Edition. Churchill. *Price* 37*s.* 6*d.*

The seventh edition of this book was good. This, the eighth, is better, for clearly considerable trouble has been taken to avoid the pitfalls (of overlap and disparity of opinion) which threaten in the path of any book that is the product of a team of writers. The standard of production is high, the illustrations very good, and throughout, small points of interest, of no use to the examinee, are allowed valuable space and thereby enliven the whole text. Although a few passages savour of the academic approach and attitude, the work as a whole is essentially full of sane and practical views and advice. The book is not large. It is quite expensive. And it is worth it. H.A.R.

Health and the Citizen. By JOSEPH V. WALKER. London : Hollis & Carter. *Price* 10*s.* 6*d.*

To review this book fairly is no easy matter, if for no other reason than that the author's unusually obscure style of writing makes it difficult to discern what he really means. That there is more in complete health than a merely efficient body is a point he reiterates with some emphasis and one with which few will nowadays disagree. On the other hand, there are more ways than one, it would seem to us, of achieving emotional and spiritual satisfaction and rightness than by the dogged adherence to a single creed. The trouble with Dr. Walker's thesis is that, instead of observing phenomena and reaching certain conclusions from them, he tends instead to postulate a dogma to which his facts are related subsequently. That is all very well if one accepts his beliefs. Not everyone, however, will be prepared to do so and they (possibly a majority) may not find his book so acceptable. G.

Correspondence

Passim

SIR,—I read with profound interest in your issue of 31st May the letter from Dr. L. L. Faull. His outlook on our profession is so clear that it is a fundamental duty for every doctor's attitude towards the patient to be one of sympathetic understanding, in order to put the patient, where possible, at ease and allay embarrassment, and particularly undesirable fears and apprehensions.

Dr. Faull's letter recalls to me a case I had many years ago. I was sent for to see a new patient—a lady of about 35 years of age. The moment I entered the room I sensed that she was highly nervous and apprehensive. I stood by the bed talking to her with an accompaniment of marked abdominal noises. I had occasion to palpate her abdomen with her ever increasing embarrassment and rumblings. I felt I had to do something about it, and taking my courage in both hands I said to her, " This reminds me of a little rhyme I once heard :

> ' I sat next to the Duchess at tea,
> It was really most awkward you see,
> Her rumblings abdominal
> Were almost phenomenal
> And everyone thought it was me.' "

Fortunately I hit the bull's eye. The patient was convulsed with laughter, and from that moment she never subsequently dreaded my visits.

The ideal doctor-patient relationship is when the patient never unnecessarily fears the visit.

Yours, etc.,

Fairlight,
Totteridge, N.20.

B. HALLEY STEWART.

Fluorescent Lighting

SIR,—I read with interest the article by Mr. Frank W. Law, M.A., M.D., F.R.C.S., on the illumination of the Eye Wards of Guy's Hospital with fluorescent lights (*Guy's Hospital Gazette*, No. 1661, dated 22nd March, 1952).

For the past two years I have had in use in my home fluorescent lighting (4-ft. tubes of 40 watts daylight shade), and have found them very satisfactory, in that they are better for reading, the soft light more soothing to my eyes, and a brighter type of illumination for the rooms than the pre-war filament type of lighting.

The other day a friend of mine was discussing with me the pros and cons of fluorescent lighting compared with the filament type (bulb) lighting ; and I was surprised when he told me that the Air Force had forbidden the use of fluorescent lighting ; whether in the buildings of the aerodrome, control tower, or in Air Force Messes, he could not state. The reason he gave me for this ban was that the fluorescent type of lights have a very high wave frequency compared to filament bulb lights, and interfered with the Airmen's vision.

I should be very grateful indeed if Mr. Law could enlighten me on the merits or demerits of fluorescent type of illumination. (That is unshaded by perspex, with a shade for reflected lighting.)

I may add that with two years of use of fluorescent lights in my office, where I do the most reading, I have not found any deleterious effects from the unshaded lights, and with only a white reflector on top ; and I have not needed a change of glasses either.

Yours, etc.,

13, Rest House Road,
Bangalore, India.

G. E. ALING,
Major, I.A.M.C.(R.).

Pseudocyesis

SIR,—It must fall to the lot of very few medical men to see genuine cases of phantom pregnancies, even those who have fairly large obstetric practices. The books on midwifery just mention this condition and refer to it saying that patients present themselves for the purpose of deliberate fraud, endeavouring to feign a condition of pregnancy, or that they have persuaded themselves that they are pregnant, and that in such cases they have been able to convince the doctor that a true pregnancy does really exist. That fraud is out of the question is, I think, shown by the three cases cited below, especially the last one of which I give a detailed account.

How this phenomenon is produced no one can give a satisfactory explanation, but to the patient concerned it must be, in some cases at least, a real tragedy. No woman can fraudulently or at will suppress her menstruation.

Case 1. A multipara was sent to me some years ago by a colleague with a note asking me to attend in her confinement in three months' time from then, menses had stopped for six months and she felt fœtal movements. There was no pregnancy.

Case 2. This happened in my own practice. She is a Spaniard who was attended by me in her first confinement. About a year and a half after this event she telephoned from the country saying that she was again pregnant, with six months amenorrhœa and feeling fœtal movements. She was not pregnant. Since then I have attended her in two subsequent confinements, and now she is pregnant again—her fourth.

Case 3. The subject of this note was really tragic and interesting. She came to me in August, 1949, and gave the following history :—" I am now 36. I was first married when 18 and had one child. My husband and child died within a year so I have been a widow 17 years. My menstruation has been perfectly regular until last December (1948) when I married again. I am now expecting a baby next month (September) and I want you to attend me." She had had the usual early pregnancy subjective symptoms—nausea, morning sickness and a tired and sleepy feeling. She stated that she felt fœtal movements soon after the middle of May and had felt them all along since. She felt perfectly well. When standing she had the appearance of a woman fairly advanced in pregnancy. On the examination table, the abdomen was enlarged, not fat, and before palpation, it had the appearance of pregnancy. There was no pregnancy. I told her so. After staring at me wide-eyed and open-mouthed, she said, " I don't believe you. I shall go and see another doctor." I said that she would not be satisfied if she saw half a dozen doctors as they would all say the same, and suggested an X-ray, which she could see herself, and which would be more satisfactory and more convincing. This was done the same afternoon. With tears in her eyes she went away convinced. She called for the film next day to show her husband and I have not seen her again, although she promised to let me know when her menses appeared.

Valparaiso, Chile. Yours, etc., STANLEY M. WELLS.

IN MAYFAIR

" But with unhurrying chase "

Betwixt a thousand faces,
Each with a tell-tale expression,
(Tempting, or repellent grimaces)
Thine had a radiance all its own :
Yolden to Love's fond chases.

Before the dogs of D Day
Enticed your man to France,
Tranquil your days, your nights gay,
Trenched with amorous dance.
Yet—(ONE marked her display)—

Bewildered in spirit and paces,
Enceinte and widowed, you staggered ;
(The Hound sprang t'her traces)
Thrilling divinely, though haggard :
Yolden to Love's stern chases.—W.G.O.

Just Pain !

By ROGER HOLLAND, M.R.C.S., L.R.C.P., L.D.S., R.C.S.

A Lecture delivered at Guy's Hospital Dental School on Tuesday, 3rd June, 1952

LADIES AND GENTLEMEN,—When one talks about or discusses a subject it is useful to begin with a definition. I am to talk to you about pain, and at once I am in difficulties in that I cannot define my subject. I feel a certain comfort in my predicament in that I am not alone. Sir Thomas Browne, writing in his *Religio Medici* in the early part of the seventeenth century, was at a loss (" I am now content to understand a mystery, without a rigid definition, in an easy and Platonic description "), and Sir Thomas Lewis, writing in this present decade, is equally so. I will quote you what Sir Thomas Lewis says in the preface of his book called *Pain* :

> " Reflection tells me that I am so far from being able satisfactorily to define pain, of which I here write, that the attempt could serve no useful purpose ; "

and he goes on to say that pain, like similar subjective things, is known to us by experience and described by illustration.

If we are at a loss to define what pain is, we are even more so to divine its purpose. For, remember, it is only 105 years ago since Simpson, who was primarily an Edinburgh obstetrician, introduced chloroform to relieve pain in childbirth. He was slandered and much maligned, particularly by the ecclesiastical authorities, who quoted the scriptures at him, mainly from the Old Testament. " Be in pain and labour to bring forth, O daughter of Zion, like a woman in travail." They declared that man was born of woman in pain and evermore it must be so. They took little account of the fact that the principal figure of the New Testament spent most of His time healing the sick and relieving pain. However, all ended well for Simpson. Queen Victoria liked the idea of less pain with a large family, and he died a baronet.

Of course, everybody knows that the threshold of pain varies enormously from individual to individual. Some, I think, do not feel pain as much as others. Some feel pain and do not show that they do so—a stoic attitude which is supposed to build up and reinforce that hypothetical thing called "character". And, again, one knows from one's own experience—and this is of great importance in the consideration of pain—that one's threshold to pain varies enormously from day to day, and even during the same day, according to the circumstances and preoccupations of the moment. To give a classic example of this, a player on the sports ground may receive quite a severe injury during the course of the game, but the game is so engrossing to him that he does not feel it until it is over.

Now we will consider another aspect of the matter. Not all tissues of the body report to the brain or respond to painful stimuli. Lewis in his book to which I have already made reference illustrates a whole series of experiments and observations on the tissues of the body. Compact bone is completely insensitive. Similarly lung tissue is insensitive. Hurst has observed that the whole length of the gut is insensitive to pain stimuli with the exception of its extremities, the œsophagus and the anus. Most paradoxical of all, brain tissue is particularly insensitive. Lewis does not mention teeth, and I am surprised at this, for he has ready to hand a perfect demonstration of this in that we as dental surgeons spend most of our time boring holes to a greater or less depth into tooth substance. Again, there is some doubt and discussion as to whether the various tissues have special pain-receiving nerve-endings and pathways or whether pain is produced by an over stimulation of, say, a touch corpuscle. But Ramón-y-Cajal has demonstrated histologically special nerve-ending mechanisms and nerve tracks leading from them, which respond to stimulus by recording a painful sensation.

Be all this as it may, we do know that the tissues with which we are principally concerned have no discrimination ; that is to say, when stimulated they give but one response. Touch, heat, cold, faradism, when applied to the pulp tissue of a tooth or near to it, all add up to just one thing—*pain.*

Now we come to the question whether there is nerve tissue in dentine or not. I cannot subscribe to any such notion as that dental pathology is different from general human pathology. Here I quote Prof. Bradlaw's work.

He, using the staining methods of Gross, Beckwith, Weigert-Pal and Cajal in frozen and serial paraffin and celloidin sections, has shown that myelinated nerves enter the apical foramina, lose their medullary sheaths in the coronal pulp and break up into numerous filaments to form the so-called " plexus of Raschow ". From here, branches pass between the odontoblasts into the " odontogenic zone " and are seen as simple or complex loops or as tangential branches running parallel with the surface of the forming dentine. He describes a nerve plexus between the odontoblasts, a " marginal plexus " also round or pear-shaped bodies attached to some of the fibres similar to those described by Tiegs, but which he is not prepared to say should be regarded as " end-organs " or " nerve-cells ".

The above extract from Bradlaw's work is taken from " Special or Dental Anatomy and Physiology " by Widdowson.

So much for the background of pain. I must try to remember that this is a clinical lecture, and introduce a patient or two here and there !

When we examine a patient suffering from pain, her story is the most important point in reaching a diagnosis as to the nature of the lesion, and I would ask you to listen with patience to the patient's story and not dive into her mouth between her sentences or even between her very words, with mirror and probe, " just to have a look ". What do we want to know from the patient ? We want to know :—

(*a*) What kind of pain it is—sharp, or dull, or throbbing.

(*b*) Its duration—for a matter of seconds, minutes, hours, days.

(*c*) Its position in the mouth—does it remain in the same place or radiate to other teeth and more remote structures such as the ear ?

(*d*) Does anything bring on the pain or make it worse, biting—hot things, cold things, sweet things ? It is as well at this stage to avoid leading questions, though they may be dropped like the lightest of flies over still waters.

(*e*) It will be obvious from the start that when a more obscure type of pain has to be dealt with we may have to ask other questions. Or, more frequently, the answers will be given without the asking. Such questions as, What do you do when the pain comes on ? Is there any part of the mouth, face, head, or neck which, when touched, will start off the pain ? Does pain occur on brushing or combing the hair ? What brings on the pain ? That is the more obscure and more rare type of pain.

Now we will take a few mouth diseases, some of them common, some of them less common, and run through the nature of the pain produced by each.

Firstly, and most commonly, pulpitis. This is said to be the most common form of pain to which flesh is heir. Grill the patient lightly, by which I mean, ask a few simple questions. In the early stages of the condition, when there is but hyperæmia of the pulp, the elucidation and subsequent diagnosis is usually easy. The patient will probably be able to indicate the tooth, or at least give the rough situation. Occasionally the phenomenon of referred pain comes into play even at this stage. This will be dealt with later. The character of the pain is sharp, of short duration—seconds or perhaps minutes. Pressure on the tooth has little effect, but the pain is aggravated by hot things, cold things, and perhaps sweet things. A careful examination will usually reveal a carious cavity. Occasionally even careful clinical examination with mirror and probe may not show up the caries and then auxiliary aids have to be used to demonstrate perhaps an interstitial cavity. The use of transillumination of teeth by simply shining a bright intraoral light through and between the teeth in a darkened room, as advocated by Professor Herbert, I have found most helpful. Finally, a well-taken, well-angled " bite wing " X-ray will be of great value in a difficult case. During the mouth examination with mirror and probe, care must be taken to explore the necks of all teeth in the area under suspicion, as exposed root surfaces will give a very similar history of pain, especially in people past the first flush of youth, though even those still flushed are not above suspicion. Pain on eating salt things is said to be a diagnostic point here, but this I cannot confirm.

Next we till turn to the symptoms of pain experienced in a case of established pulpitis, and I cannot do better than quote to you a typical case. A patient presents himself to you at the end of the day—usually the last day of our working week. He will say he has had severe pain for the last three days. It was present for about half-an-hour at first, increasing to, say, bouts of three hours, and occasionally he may give the classical symptom, that pain prevents sleep, in that, at the moment of " dropping off " he gets an acute exacerbation. This is said to be due to a pressure effect in the pulp chamber as the peripheral capillaries dilate on going to sleep.

If you are fortunate the patient will be able to indicate the tooth to you, and if the tooth is a posterior one extraction of that tooth is usually indicated. More often, however, the patient will be very vague and say, " I don't know ; it is somewhere on this side of my face." Then, with as much resignation as you can muster, you ask the patient to open his mouth, and more than likely you will find two rows of heavily filled teeth extending just as far as you can see. You are then up against what I think is the most difficult problem found in routine dentistry. The problem is labelled in my mind, as the dental variant of the racecourse card game of " Find the Lady ". I will not go into the details of diagnosis. Careful clinical examination, with transillumination of teeth, X-rays of the crowns of molars and premolars to see if there are any cavities below the margins of interstitial fillings, hot and cold tests carefully carried out, and the use of the electrical pulp tester will usually give you the answer.

What happens if the patient is too stoical or perhaps too frightened to seek professional advice ? Suddenly the pain will stop. The tooth may remain painless and quiescent for a longer or shorter time or the symptoms may change and the tooth, while ceasing to respond dramatically by pain on the application of heat or cold, may become sensitive to pressure and to biting. This means that the pulp has died and infection has spread to the periapical tissues. If, yet again, the condition is left untreated an active alveolar abscess will form. The characteristics of the pain attendant on this condition are that it is dull, throbbing, sharpening when the offending tooth is touched, and continuous. If, once more, the abscess is not treated there may again occur a dramatic cessation of pain, when the pent-up pus, wishing to break surface, penetrates the alveolar bone, and tension is relieved.

When we consider the pain symptoms of paraodontal disease, be it simplex or complex, we are struck by their paucity. How often have we seen middle-aged or elderly people with apparently perfect teeth who have been horrified on being told that they have got to lose most of them. " But," they say, " I have had no pain, and I only came to see you because I wanted you to tighten up these two."

Pain from third molars falls into two groups, I think, if we exclude caries. Pain from a partially erupting third molar is, in the initial stages, a question of soreness. Later, with a fully established pericoronitis, there are pain, symptoms of inflammation, and early abscess formation, together with super-added symptoms.

Then we come to the vexed question of the pain caused by third molars, impacted and otherwise, trying to burrow their little selves to the surface. I may be heretical but, frankly, I am not impressed.

It is believed by some that those teeth which are said to behave like moles and burrow into things, such as second molars, give rise to pain experienced in the ear, and this naturally leads me to the phenomenon of referred pain. Perhaps nowhere else in the body is this more commonly manifest, and nowhere else does it give rise to more confusion. Another illustration will help at this point. A patient was referred to me recently. She had earache in the left ear, and the ear, nose and throat specialist had reported some scarring of the membrane. Little had been done in the way of therapeutic measures except to relieve the pain temporarily with analgesic substances. After about a week it was thought advisable to look further afield. The lower left first molar was grossly carious, and the patient had complained of slight toothache. Extraction of this tooth gave immediate relief of symptoms. Coincidence ? I do not think so. One thing to be remembered about referred pain as it affects the trigeminal nerve is that pain is never referred across the mid-line.

A type of referred pain which must have caused the massacre of many hundreds of innocent teeth is pain referred from the maxillary antrum. A vague maxillary pain, which may be of varying intensity without any definite dental causes, should always make one suspicious. A history of a cold or a waning cold, a mucky one-sided catarrh on blowing the nose, pain of a throbbing character made worse by bending the head down, should always make one suspicious of an antral sinusitis.

Now to finish. Many of you will see that I have not mentioned many conditions. Not even trigeminal neuralgia, which is said to be the worst pain man can endure, has been mentioned. Pain from a carcinoma of the mouth has not been mentioned, and so on. This has been done deliberately. I have endeavoured to sketch the background of pain and to emphasise the pain symptoms of the common, humdrum, everyday diseases—in a word (or two words), JUST PAIN !

Sport

GUY'S HOSPITAL ATHLETIC CLUB

INTER-HOSPITAL CHAMPIONSHIPS

The Inter-Hospital Championships took place at Motspur Park on June 4th and 7th. Guy's, unlucky on the Wednesday, showed excellent team spirit on the last day, gleaning every available point to come second to the London Hospital, while yet not winning one event.

Result :	London	74 pts.
	Guy's	63 pts.
	St. Bartholomew's ..	49 pts.
	St. Thomas's	44 pts.

St. Mary's (41) ; St. George's (33) ; Middlesex (11) ; Westminster (11) ; University College (8) ; Charing Cross (6) ; King's College (5).

Guy's *v.* King's College "A"

Wednesday, 21st May, 1952, at Battersea

Guy's	45½ pts.
King's College "A" ..	30½ pts.

Guy's *v.* London Hospital

Wednesday, 28th May, 1952, at Deptford

Guy's	28 pts.
London Hospital ..	20 pts.

Guy's *v.* Woolwich Polytechnic

Wednesday, 11th June, 1952, at Eltham

Guy's	42 pts.
Woolwich Polytechnic	29 pts.

Guy's *v.* Old College, R.M.A.

Wednesday, 18th June, 1952, at Sandhurst

Guy's	67 pts.
Old College	48 pts.

TENNIS CLUB

Results :

Guy's *v.* Paddington

Lost 5—4

Guy's *v.* Private Banks

Won 6½—2½

After a bad start to the season, losing five matches in a row, Guy's met Middlesex in the 2nd round of the Inter-Hospitals' Cup. The result of this game was settled after two rounds and Guy's went on to an 8–0 victory, the last game not being played. F. A. F. Biddle, this year's captain, had to drop out at the last minute with a septic foot but his place was ably taken by J. Chard.

The fixture against West Herts. had to be cancelled owing to rain and so the next match was against U.C.H. in the Semi-Final of the Cup. The opposition was a little stronger than met with in the previous round but again the result was settled by the end of the second round (5–1) the other games not being played.

Guy's fortunately have a well balanced side for the second year running with a very strong first pair. The team :—

1. P. Frost 2. F. A. F. Biddle (*Capt.*)
S. Hooper J. A. A. Bullard (*Sec.*)
3. D. Duckworth
K. Thomas

In the Final of the Inter-Hospitals' Cup Guy's will meet the winners of the match London *v.* St. Thomas's. This will probably be played on July 9th at H.O.P.

CRICKET CLUB

Guy's 1st XI *v.* Honor Oak

At Home. Result—Draw

Honor Oak 198–6 dec. Guy's 138–8

Guy's

N. R. Cooke, b. Cheeseman	20
W. J. Howells, l.b.w., b. Cheeseman ..	0
M. J. Williams, b. Cheeseman	6
D. M. Allan, not out	61
E. R. Gibbons, b. Foster	0
A. Prince, b. Cheeseman	5
B. Dunstan, c. & b. Weymouth	27
K. W. Gray, c. & b. Weymouth	2
M. Willis, c. Alexander, b. Weymouth ..	5
G. Rosaire, not out	2
W. Tweed, did not bat	
Extras	10
	138

Bowling : Rosaire, 9-1-33-1 ; Cooke, 2-0-4-0 ; Willis, 4-0-23-1 ; Williams, 3-0-29-1; Gray, 12-0-39-1 ; Allan, 11-1-45-2 ; Tweed, 3-0-16-0.

Guy's 2nd XI *v.* Honor Oak

Result—Lost

Honor Oak 95 (Trist 4–32).
Guy's 55 (Whitrow 29)

Guy's 2nd XI *v.* Chartered Banks

Result—Won

Chartered Banks 72 (Rosair 4–12) ; Wooding 4–25)
Guy's 73–3.

Hospital Information, etc.

PAPERS BY GUY'S MEN

Baker, Charles, Brock, R. C., Campbell, Maurice, and Wood, Paul. Valvotomy for Mitral Stenosis, *Brit. med. J.*, 1952, **1**, 1043.

Baylis, J. H., and Kauntze, R. The Effect of Dimercaprol on Hypertension. *Lancet*, 1952, **1**, 1092.

Bearn, A. G., and others. The Response of the Liver to Insulin in Normal Subjects and in Diabetes Mellitus : Hepatic Vein Catheterisation Studies. *Clin. Sci.*, 1952, **11**, 151.

Beccle, H. C. Family Welfare Organisations from the Psychiatric Point of View. *Med. Pr.*, 1952, **227**, 465.

Burn, J., and another. Effect of Denervation on Amine Oxidase in Structures Innervated by the Sympathetic. *Brit. J. Pharmacol.*, 1952, **7**, 304.

Citron, K., and others. Congestive Cardiac Failure Treated with Ion-exchange Resins. *Proc. R. Soc. Med.*, 1952, **45**, 148.

Earl, C. J., and Thompson, R. H. S. The Inhibitory Action of Tri-ortho-cresyl Phosphate on Cholinesterases. *Brit. J. Pharmacol.*, 1952, **7**, 261.

Evans, P. R., and another. Scurvy in Mentally Defective Children. *Gt. Ormond Str. J.*, 1952, No. 2, p. 90.

Evans, P. R. Prophylaxis of Cerebral Palsy. *Minerva Pediat., Torino.*, 1952, Anno. IV, No. 5 (15 Marzo).

Falconer, Murray. Discussion on Pathology, Diagnosis and Treatment of Intracranial Saccular Aneurysms. *Proc. R. Soc. Med.*, 1952, **45**, 298.

French, J. M., and others. The Absorption of Glucose and Urea from the Upper Small Intestine in the Sprue Syndrome. *Clin. Sci.*, 1952, **11**, 141.

Hawkins, C. F. Deciduous Canine in a Patient of 65. *Brit. dent. J.*, 1952, **92**, 268.

Hallpike, C. S. Operating-Spectacles for Aural Surgery. *Lancet*, 1952, i, 1193.

Hallpike, C. S., and another. The Pathology, Symptomatology and Diagnosis of Certain Common Disorders of the Vestibular System. *Proc. R. Soc. Med.*, 1952, **45**, 341.

Höhn, E. O. Steroids Exerting a Direct Progestational Effect on the Rabbit Endometrium. *Nature*, 1952, **169**, 844.

Kark, Robert M., and another. Does Adrenaline Eosinopenia Reflect Pituitary-Adrenal Function in Man ? *Lancet*, 1952, i, 1189.

Kauntze, Ralph. Discussion on the Medical Treatment of Hypertension. *Proc. R. Soc. Med.*, 1952, **45**, 271.

Knox, R. Drug Resistance of Micro-organisms. *Proc. R. Soc. Med.*, 1952, **45**, 325.

Lane, R. E., and others. Urinary Coproporphyrins in Lead Poisoning. *Brit. J. Industr. Med.*, 1952, **9**, 133.

McCallum, R. I. Pneumoconiosis of Coal Miners in North East England with Special Reference to the Durham Coalfield. *Brit. J. industr. Med.*, 1952, **9**, 99.

McKeown, Thomas, and another. Observations on all Births (23,970) in Birmingham, 1947. VI. Birth Weight, Duration of Gestation, and Survival Related to Sex. *Brit. J. soc. Med.*, 1952, **6**, 152.

McLean, John W., and another. The Response of the Human Pulp to Self-Polymerising Acrylic Restorations. *Brit. dent. J.*, 1952, **92**, 311.

Northfield, D. W. C. Discussion on Pathology, Diagnosis and Treatment of Intracranial Saccular Aneurysms. *Proc. R. Soc. Med.*, 1952, **45**, 302.

Ogilvie, Sir Heneage. The First Part of the Duodenum. *Lancet*, 1952, **1**, 1077.

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EXAMINERS

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Dr. E. J. Crisp

Diploma in Anæsthetics

Prof. R. R. Macintosh

APPOINTMENTS

G. P. Baker, M.D., M.R.C.P., has been appointed Consultant Physician to the Croydon Group of Hospitals.

John Gordon, D.A., has been appointed Consultant Anæsthetist to the Rowley Bristow Orthopædic Hospital at Pyrford, Surrey.

CHANGES OF ADDRESS

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BIRTHS

ALBAN-JONES.—On 11th June, 1952, at the County Hospital, Bangor, to Delyth (née Lewys Lloyd), wife of Dr. D. J. A. Alban-Jones—a daughter.

CARSON.—On 11th June, 1952, at Guildford, to Betty (née Wood), wife of Robert McKenzie Carson, B.D.S., L.D.S.—a daughter.

EMSLIE.—On 11th June, 1952, at Guy's Hospital, to Dorothy (née Dennis), wife of Ronald D. Emslie, F.D.S.—a son (Douglas Blackburn).

WILLIAMS.—On 16th June, 1952, at the Radley Lodge Nursing Home, S.W.19, to Pat (née Crosbie), wife of Gordon L. M. Williams, L.D.S., of The Mansard House, Brook Gardens, Kingston Hill—a daughter, sister for John, Penny and Sally.

MARRIAGES

ALLDRIDGE-TERRY.—On 24th June, 1952, in Dorchester, Douglas G. E. Alldridge, M.B., B.S., to Gillian Mary Terry, S.R.N.

KUSTOW-JUSTUS.—On 15th June, 1952, in London, Bernard Kustow, M.B., B.S., to Ann Justus.

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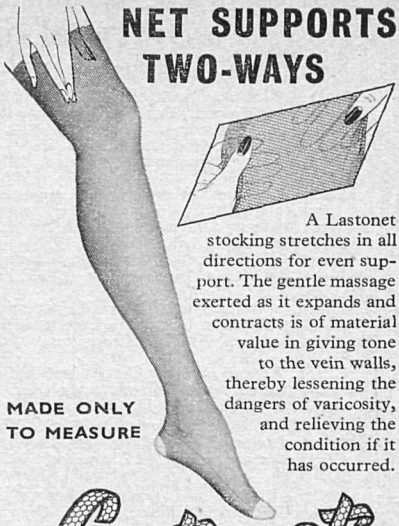

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GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

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PASSIM

A FEW weeks ago there was printed in *The Times* an article from which the following extract is taken:

" In a letter from Carlyle to John Stuart Mill there occurs this remark : ' It is long years since I first saw the meaning of humility, and it came on me like water on one dying of thirst, and I felt it, and still feel it, to be the beginning of moral life.'

The confession, all the more striking from such a source, is one which has been echoed times beyond number in Christian experience. And yet it is probably no exaggeration to say that the recognition of humility as ' the beginning of moral life ' is something like a complete reversal of the scales of values of our contemporary world. The fierce competition of commercial life, the clamant self-assertiveness of politics, the widespread repudiation of the gentler and more humane qualities in human character leave little room for the acknowledgment of such a grace as humility.

None the less there are not a few who, when they stop to consider the deliverances of their own inner experience, or reflect on the ever-mounting evidence of the destructive rivalries of national and international life, find themselves driven to confess the truth of this verdict. For if there is one thing which, at any deep level of moral reflection, becomes clear, it is just precisely the fact that there is little hope for peace either in the individual soul or in the world, so long as the spirit of self-assertiveness continues to be man's dominant motive.

In the individual it is a continual source of anxiety. He feels that he must fight for his place either externally in a competitive environment, or, which is even more damaging, inwardly in a world in which his self-esteem is threatened by the pressure of other personalities all striving for the same right to come to the top, even to survive, as personalities. Instead of being able freely to offer to others the recognition which he can equally freely expect from them, he has to maintain himself by a constant effort to outstrip, to dominate, to supress rival claims."

These remarks, made in a general context, have a direct application to the world of medicine which needs no emphasis. The high reputation of any profession depends upon the same underlying personal standards of its members. The qualities required in a good doctor are just those required in a good parson, a good lawyer or a good teacher. Yet in no walk of life more than in medicine is humility a virtue. All that *The Times*' correspondent writes about " fierce competition " and " clamant self-assertiveness " is not less applicable to medical life than to other occupations. Indeed the keenly competitive environment in which the doctor spends his first few years after qualification threatens to wither those very fruits which increasing knowledge and long years of training ought to bring, namely, wisdom. Wisdom is not knowledge. It lies in the application of knowledge ; of knowledge and experience used with humility. It is something learned apart from medical training, derived from personal qualities beyond the ability of textbooks to influence, owing little to industry or enthusiasm, something to philosophy, much to example. Seldom is it acquired early in life. Often it is never acquired. Yet of all qualities, far above brilliance, wisdom is the mark of a good doctor, and it is inseparable from humility.

There are few professions in which the importance of the individual finds more practical recognition than in medicine. Few doctors believe that the needs or the ailments of common men are purely physical. Doctors, too, are common men, and had Carlyle been a doctor he might well have written that humility is not only the beginning of moral life, but the beginning also of clinical wisdom.

Miss E. M. Griffin left the Matron's Office on 26th June to take up her new post as Matron of the West Kent General Hospital, Maidstone. Our good wishes go with her.

At Guy's we shall miss her very much. After general training she did private nursing in England and South Africa and returned to the Civil Nursing Reserve in 1939 and was posted to Guy's Unit at Pembury where she was Ward and Home Sister. Later she came to Guy's as Home Sister and subsequently became Assistant Matron in 1947.

Kent is her county of adoption and we hope she will be happy in her new sphere.

The Physiotherapy Department held their Annual Summer Ball, in new surroundings, at the Royal Festival Hall, last month.

Upwards of 200 attended, and were graciously received by Sister Evans and Dr. Crisp. Dancing took place from 8.30–1.0 in the restaurant under the capable eye of the M.C., Mr. Batch, to the music of the Resident Band.

The floor was always popular, though some of the more adventurous found time to explore the attractive surroundings of the Hall. Quick-step, waltz and other dances gave way to refreshments at 11 p.m., after which the guests returned to the floor with renewed vigour.

The organisers of this excellent Ball must have been amply rewarded when they saw the obvious enthusiasm and enjoyment of their guests. This may be a good place to thank them again for giving everyone such a pleasant evening.

The Sixth Addison Lecture will be given on Monday, 14th July, 1952, at 5 p.m., in the Physiology Theatre. The Lecture will be delivered by Professor T. Reichstein and will be on "The Chemistry of the Adrenal Cortical Hormones". Professor E. C. Dodds, F.R.S., will be in the chair. Those wishing to attend should apply to the Medical School Office for tickets.

In connection with the XIth International Dental Congress, an all-day Clinical Meeting will be held in the Dental Department on Tuesday, 22nd July, 1952. Admission is by ticket only to Members of the Congress. Tickets may be obtained from the Dental Sub-Dean, Medical School, Guy's Hospital, London, S.E.1. A stamped and addressed envelope should be sent with applications, and applicants are requested to state whether they wish to attend in the morning or the afternoon.

LAND AND SEA

Who sends each gull and cormorant to rove
And swing their reeling roundelay ;
While white clouds steal the blue to move
Above the long-flung bay ?

Whence comes shrill squall, with complementary calm,
That screens the shadowed rock-shelved sea
To travis light-washed lichened farm
Across the grey-green lea ?

And tell me why can saint and sinner love ?
Throw dance about the Cornish tree
Mid moor and mine which stand above
The stamp and surge of sea ?

J.C.D.

Cancer in Children

By RONALD MAC KEITH, D.M., F.R.C.P.

A Clinical Lecture given at Guy's Hospital on 31st March, 1952

LADIES AND GENTLEMEN,—When an adult comes to his doctor, whatever his symptoms—tiredness, vomiting, pains and so on, the possibility of a neoplasm is always considered. At any rate, for middle-aged patients, it should be. But it was surprising to me to find on looking round the children's ward, that the children with newgrowths formed the biggest group in the ward.

Brain Tumours in Children.

CASE 1.

This was a child aged seven years with a left hemiplegia and intracranial tumour. She originally was brought to her doctor because her behaviour was changing for the worse. He recognised that there were signs of organic disorder and sent her here, and she was shown to have a diffuse newgrowth of the brain stem and pons. It has proved to be a very slow-growing neoplasm, for it is nine months since she came here.

She may be taken as an example of the infratentorial brain tumours which are commoner in children than supratentorial growths.

TABLE I

100 Brain Tumours in Children

Sites

Cerebral Hemispheres	19
3rd Ventricle	20
Cerebellum	45
Pons	12
Base of Skull	4

(Walker & Hopple 1949)

Table I shows the sites of 100 brain tumours in children (Walker & Hopple, 1949). Almost half arise in the cerebellum; of these cerebellar tumours, a slight preponderance are astrocytomata—well differentiated, slow growing and of good prognosis—the others being medulloblastomata which arise in the mid cerebellum, are less differentiated and are graver problems. In contrast to a lesion in the lateral cerebellum which produces ataxia of the *limbs*, these tumours of the mid cerebellum produce swaying and ataxia of the *trunk*.

CASE 2.

An example of the supratentorial tumours, rarer in children, is a six year old child now in the children's ward. She has von Recklinghausen's neurofibromatosis with pigmented skin patches and a tumour in her third ventricle, among the pressure effects of which are precocious puberty and obesity.

TABLE II

100 Brain Tumours in Children

Histological Findings

Gliomata	78
Meningiomata	5
Epithelial Tumours	7
Sarcomata	8
Congenital Cysts	1
Angioma	1

(Walker & Hopple 1949)

Table II shows that four-fifths of brain tumours in children are gliomata. Notice that there were no acoustic nerve tumours nor any pituitary adenomata among these 100 cases, though these tumours between them account for 25 per cent. of brain tumours in adults.

SYMPTOMS.

It is the *general* symptoms from raised intracranial pressure that are noticed first, rather than local effects of the tumour, and usually the lesion is already advanced when help is sought. The age of incidence is shown in Fig. 1.

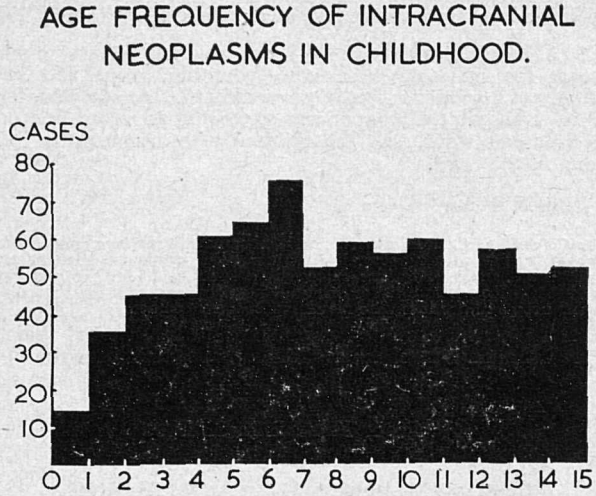


FIG. 1 (Walker & Hopple 1949)

The old rhyme, " headache, vertigo and vomiting, optic neuritis and fits " is useful enough, but fits are a *late* symptom, and MUST NOT be waited for to make the diagnosis.

Headache may be anywhere. Vomiting may occur without nausea, the child may throw up and come back to eat another good dinner, like " an antic Roman ". Vomiting may come and go and be labelled " cyclic vomiting ". (Please don't forget that this is much more commonly a stress disorder.) Enlargement of the head, weakness, and staggering may occur. Localising signs and fits are usually *late* events. Behaviour problems may be the way a change of personality due to a brain tumour shows itself.

DIAGNOSIS.

It has been said that although it is not possible for all of us to be clever, we can at least be kind. Nor is it possible to be neuroradiologists and electroencephalographists, but we can any of us do a clinical examination of the nervous system, including looking at the fundi. For aid in diagnosis we may have an *X-ray of the skull*, an *E.E.G.*, and perhaps arteriography. The neuroradiologists have contributed a great deal to the attack on cerebral tumours. In one survey of nearly 400 cases, positive evidence was found in X-rays of the skull in two-thirds of the cases—separation of sutures, erosion of clinoid processes, erosion of floor of sella turcica, abnormal calcification, and erosion of the skull.

A *lumbar puncture* is not to be done unless there is certainly no papillœdema.

Air studies of the brain, whether by lumbar or ventricular route, are not done when a space-occupying lesion is suspected, except with a neurosurgeon present to go into action if need arise. The possibility of danger is real.

DIFFERENTIAL DIAGNOSIS.

There are *congenital* lesions producing blockage of C.S.F. flow. Among *inflammatory* lesions, I find it shaming to read that tuberculomata (which are a preventable evil) are " common in England, but twenty times rarer in U.S.A.".

Trauma may cause a collection of blood or of clear fluid to form—a subdural hæmatoma or hygroma. In children in this country these have rarely been recognised so far, although we have been looking for them.

TREATMENT.

Removal and X-ray treatment are the only treatments for brain tumours. The slow-growing astrocystoma may be removable ; the undifferentiated medulloblastomata may respond to X-rays. At the Christie Hospital in Manchester, of 14 medulloblastomata treated by X-rays, nine survived for three years or more (Gaisford 1949).

Intra-Abdominal Neoplasms.

Just as intracranial tumours are usually considered together, so we may take together the neoplasms arising at the back of the abdomen. The three commonest are the neuroblastoma of the adrenal, the nephroblastoma (or primitive newgrowth of the kidney), and the teratoma.

ADRENAL NEUROBLASTOMA.

This may attract attention as a lump in the abdomen or by its metastases to bones—e.g., of the skull (Hutchinson's syndrome), or to the liver (Pepper's syndrome). A black eye with proptosis may be due to a secondary deposit in the orbit. When it presents as a lump in the abdomen it may well be impossible to tell it from a nephroblastoma (Wilm's Tumour). The microscopic appearances are typically of cells arranged in rosettes (Fig. 2), but at times the tissue of the tumour may be difficult to identify. This is one of the rare occasions on which tissue culture is of value ; for recognisable nerve cells can be grown from a neuroblastoma.

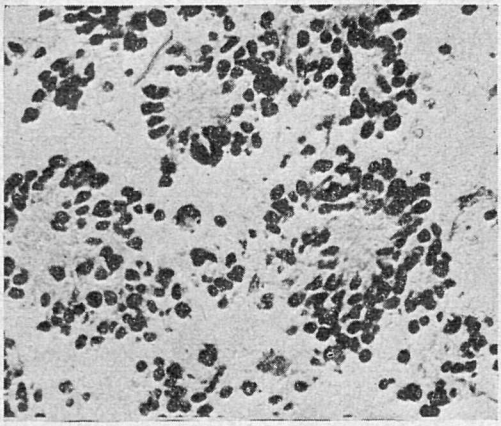


FIG. 2 (from Goldring, 1951)

The treatment is by X-rays and removal. Remember that this treatment may be followed by recovery even when there have been secondaries in the liver.

NEPHROBLASTOMA (WILM'S TUMOUR).

CASE 3.

For the last ten weeks there has been in Diplock Ward a two and a half year old boy with a large lump in the abdomen. The family doctor at a routine examination for stomach ache found a lump reaching half way from ribs to pubis, thought it might be a kidney and sent the boy in. All the consultants (*and* the housemen *and* the registrars) " recognised " it as a liver. A laparotomy showed it was an enormous retroperitoneal lump, probably an enlarged kidney, pushing the liver forward. In this case X-ray treatment had no effect. The necropsy a few days ago confirmed that it was a nephroblastoma.

There are benign neoplasms, fibromata, etc., of the kidney but *any new growth of the kidney that is clinically recognisable is malignant.* Such new growths occur under the age of five years or over the age of 40. Those in the small children are nephroblastomata (Wilm's Tumour) ; the ones in the middle-aged are hypernephromata (Grawitz' Tumour). I recall being muddled between these two. Clinically no confusion arises for the two occur at different ages, and if the alliterative phrase " GRawitz in GRown-ups " is remembered, all will be well.

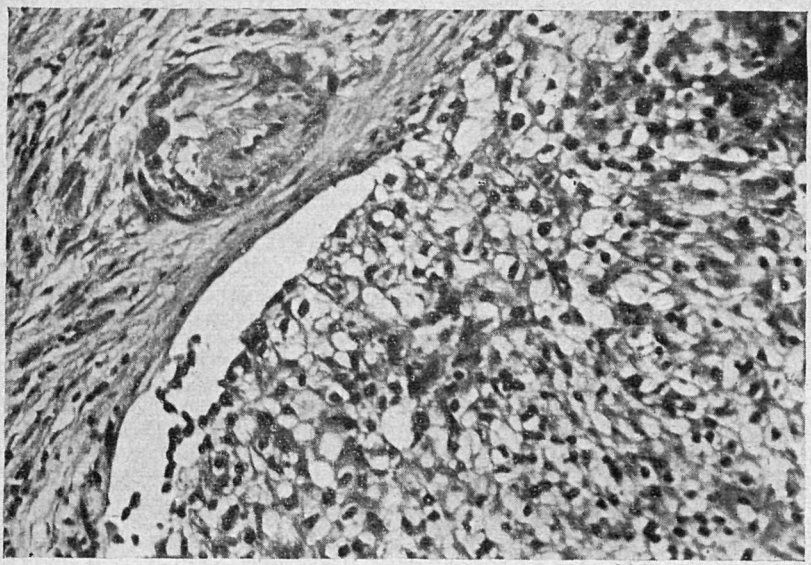


FIG. 3

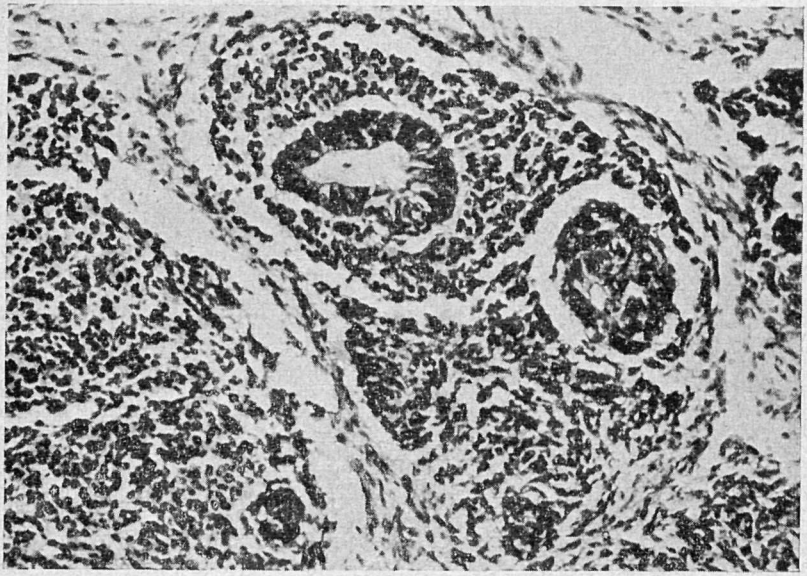


FIG. 4

Table III summarises some of the differences. Of Figs. 3 and 4, one shows the microscopic appearances of a Wilm's and the other shows those of a Grawitz' tumour. Which is which ?

TABLE III

	Wilm's Tumour	*Grawitz' Tumour*
Age	Babies	Grown-ups
On Section	White	"Red, white & blue" (Golden yellow, grey and red)
Microscopy	Mixed cells ; may be glomeruli	Clear cells
Symptoms	Hæmaturia rather uncommon	Hæmaturia common

CLINICAL PICTURE.

Nephroblastomata are seen in children under the age of five years ; they may be congenital—present from birth. Table IV shows the symptoms observed in 67 cases seen 1925–1950 at the Hospital for Sick Children, Great Ormond Street.

TABLE IV

Nephroblastomata

Symptoms in 67 cases seen G.O.S. 1925–1950	
Abdominal swelling	47 (39)
Hæmaturia..	17 (15)
Abdominal pain	14
General symptoms	11
Vomiting	6

(Figures in brackets refer to number of cases with the symptoms *as presenting* feature)

Hæmaturia was the presenting symptom in one fifth and the size of tumour excited notice in two-thirds of the cases (Bodian, 1951).

It is noteworthy that hæmaturia is *not* excessively rare as the first symptom, even though it is rarer with Wilm's than with Grawitz' tumour of the kidney.

If a TRIAD of an abdominal lump, pain, hæmaturia, is found, then metastases may be reckoned to have already occurred ; this triad is evidence that the disorder has advanced to a *late* stage. A symptom of some interest is hypertension. This may disappear if the renal lump is removed. It may be that a hypertensive substance is made by the neoplastic tissue, or it may be that the lump interferes with the blood supply of the remaining kidney tissue.

DIFFERENTIAL DIAGNOSIS.

Finding a lump in the abdomen on examining a child brings to mind the three commoner newgrowths, neuroblastoma, nephroblastoma and teratoma ; and also hydronephrosis and polycystic kidney. Tumours of the testicle sometimes present as an abdominal mass of secondary growths.

DIAGNOSIS.

If there is hæmaturia, and nephritis is not the cause of it, a cystoscopy should be arranged—quickly before the bleeding stops. A retrograde pyelogram gives more reliable information than an intravenous one. Before embarking on operation, the skeleton may be examined radiologically for metastases, but a laparotomy should not be delayed.

TREATMENT.

If there are no secondary deposits, a transfusion, removal of the tumour, and then X-ray therapy is probably the best routine treatment. The prognosis varies from place to place. For example, Gross and Neuheuser (1950) report that by attention to anæsthesia, transfusion, etc., their cure rate of nephroblastomata was raised from 15% to 32%; and when X-ray therapy was used as well as removal, the probable cures were 47% (80% in children under 12 months old). This seems to me to be a challenge.

RETROPERITONEAL TERATOMA.

After the neuroblastoma of the adrenal medulla and the nephroblastoma (Wilm's Tumour) of the kidney, the third commonest retroperitoneal tumour is the teratoma. It is rarer than the other two and half the cases occur in children under a year old. These newgrowths are usually cystic and kill by pressure effects; only rarely by malignant spread (Arnheim, 1951).

Two Rare Neoplasms.

CASE 4.

This is of a five year old girl who has been under Mr. Reading's care for a year or so. She has had a tracheotomy done because she was choking from papillomata of the larynx. This condition occurs in children, does not metastasise but recurs locally, as it has done here. It usually clears up at puberty. For this reason œstrogens were given but they had no effect in this child.

CASE 5.

This is of a three year old boy under Dr. Philip Evans' care and has made me think. Many children have a solitary palpable lymph gland on one side of the neck. A surgeon removed the gland felt in this boy's neck and it was found to have the structure of *cancerous thyroid tissue*. An X-ray showed miliary shadows in the lung. He has a small enlargement of the thyroid, and he is to have X-ray treatment. Although there are secondaries in the lungs, the prognosis is fairly good for these may be radio-sensitive.

Retinoblastoma.

The retinoblastoma is relatively rare but may be remembered as comparable to the Neuroblastoma and Nephroblastoma. It runs in families and is probably present at birth but the end of the first year may be reached before defective vision and a peculiar yellow reflex of the pupil is seen. Sometimes it is bilateral. The treatment is early enucleation of the eye. The prognosis is bad because local recurrences are common. If cure follows, a responsibility lies with you to see that when grown-up, your cured patient has no children. That would be too dangerous.

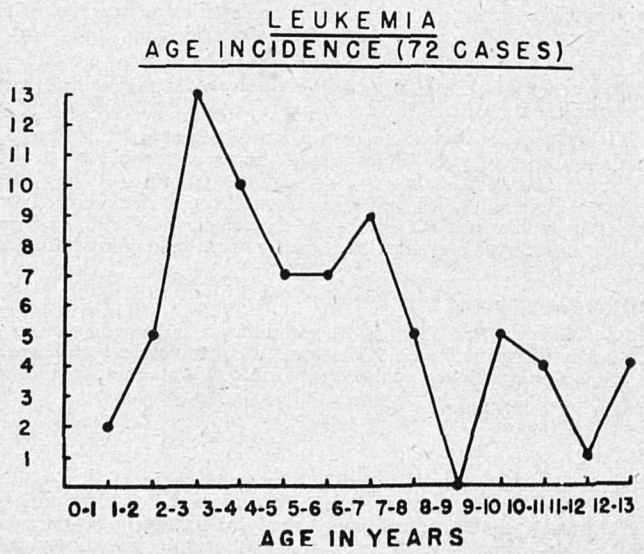


FIG. 5

New Growths of Bones.

In contrast to retinoblastoma, the new growths of *bones* are seen in older children. The two worth noting are the osteogenetic sarcoma and Ewing's Tumour. The prognosis of the first is extremely bad. That of the second is better. It is recognised by an " onion skin " X-ray appearance produced by layers of new bone formation at the periosteum. Either of these new growths of bone may present with local pain, swelling, tenderness and pyrexia. It is not surprising that they are sometimes labelled as osteomyelitis.

Leukæmia.

In this Hospital there is no need for me to do more than to remind you of Hodgkin's Disease. It occurs in childhood, but is less common than leukæmia.

Leukæmias constitute about two-fifths of the total combined mortality from new growths plus leukæmia. The age incidence in 72 cases is shown in Fig. 5 (from Dale, 1949). It is evidently toddlers who are affected.

In childhood, acute types of leukæmia are commoner than chronic types. It is a waste of time to strive to differentiate various types of acute leukæmia in children ; it is wiser to call them acute leukæmias ; they are all blast-celled leukæmias with very undifferentiated cells in the blood film. Among the chronic ones there are, of course, lymphatic, myeloid and monocytic varieties.

SYMPTOMS.

Children with leukæmia may appear to have an acute infection with fever, or debility with pallor, or bleeding ; while aches suggesting rheumatic fever may be caused by the affection of the bone marrow ; ulcerations of the pharynx or mucous membrane of the mouth, a firm hypertrophy of the gums resembling that seen in Epanutin sensitivity and also hepatosplenomegaly are to be remembered. " A lump in the tummy " may be a way a mother describes a hepato—or a splenomegaly.

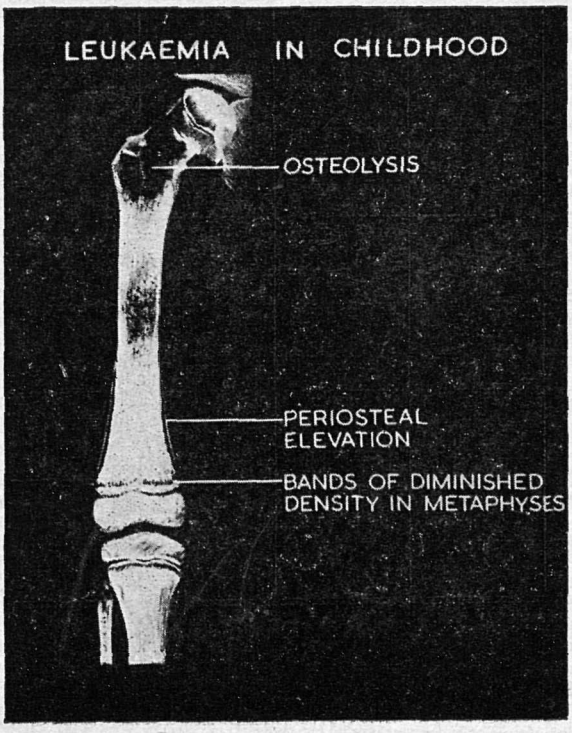


FIG. 6.

SIGNS.

Anæmia and bleeding both arise because the red cell and platelet parent cells are interfered with by the overgrowth of leukæmic tissue in the marrow. The white cell count may be 600 or it may be 600,000 cells per cubic millimetre. A marrow puncture is nearly, but not quite always diagnostic.

Dr. Evans recently had a child under his care for lassitude and anæmia. She had a normal marrow puncture on the first occasion but nine months later the marrow showed leukæmic changes.

X-RAY CHANGES IN LEUKÆMIA IN CHILDREN.

Three-quarters of the cases of leukæmia in children are said to show X-ray changes in the bones.

The typical changes are three in number (see Fig. 6).

1. A *transverse radio-translucent* band above the epiphysis (Baty and Vogt, 1933). This is said to be the commonest radiological abnormality. Occasionally it may be present and then go away for a time.
2. *Osteolysis* due to the proliferating marrow accounts for 40 per cent. of the X-ray changes.
3. *Periosteal elevation* accounts for 25 per cent. It is often combined with osteolysis.

General Discussion of New Growths in Childhood.

Let us now review the subject. What, for example, are the *common* types of cancer in childhood ?

TABLE V

Findings of various observers and at different hospitals since Duzan's first contribution to the subject in 1876

Source of information	Site of tumour in order of frequency			
	1	2	3	4
Duzan, 1876	Eye	Kidney	Testis	—
Steffen, 1905	Kidney	Eye	Intracranial	Bone
Helmholtz, 1931 ..	Intracranial	Leukæmia	Bone	Kidney
Williams, 1946 ..	Bone	Intracranial	Eye	Kidney
Dargeon, 1947 ..	Bone	Kidney	Eye	Leukæmia
Children's Hospital, Birmingham, 1937 and 1947	Leukæmia	Intracranial	Kidney	—
Royal Manchester Children's Hospital, 1943–1947	Leukæmia	Intracranial	Kidney	—
Children's Hospital, Great Ormond Street, 1947	Leukæmia	Intracranial	Kidney	—
Christie Hospital, Manchester, 1941–1945 ..	Intracranial	Leukæmia	Eye	Kidney
Steiner, 1947	Leukæmia	Intracranial	Kidney	—

(Hodgkin's disease is included with leukæmia)

Table V (from Gaisford, 1949) shows what were the common types in various hospitals. Leukæmia and the new growths of brain, kidney, adrenal, eye and bone are obviously the ones most commonly occurring.

Table VI shows the incidence of certain common infections and other illnesses compared with the incidence of cancer in children in 1949. There are certain interesting differences between new growths in children and adults. (The figures are from the Registrar-General's Report for 1949.)

TABLE VI

DEATHS, 1949. CHILDREN 0–15 YEARS OF AGE

Tuberculosis of Respiratory System. .		874
Tuberculosis of Meninges		844
Pertussis		525
Cancer.		**501**
Urinary System . .	81	
Brain	146	
Adrenal	24	
Heart Disease		395
Leukæmias and Aleukæmias . .		**369**
Nephritis		298
Appendicitis		293
Measles.		288
Cerebro-spinal meningitis		233
Acute anterior poliomyelitis		219
Congenital syphilis		68
Diphtheria		67

Table VII shows that new growths of epithelium, i.e., carcinomata, are relatively rare among children's neoplasms; while Table VIII shows that the sites of new growths in children also differ from those in adults.

TABLE VII

365 CASES OF NEOPLASTIC DISEASE IN CHILDREN

(Gt. Ormond Street, 1925–49)

1.	Embryonary Tumours and Teratomata	60%
2.	Sarcomata	22%
3.	Gliomata and non-glial intracranial tumours . .	16%
4.	Carcinomata	2%

(Bodian, 1951)

TABLE VIII

COMPARISON OF MALIGNANT TUMOURS IN ADULTS AND CHILDREN

	Adults	Children
Digestive system	50%	3%
Genital system	22%	4%
Urinary system	4%	30%
Central nervous and Sympathetic system. .	3%	44%

(Bodian, 1951)

New growths, of course, are not very common and each one of you may not see many in his life, but as infections diminish in importance because of the improvement in nutrition and the introduction of better anti-bacterial agents, these rather rare new growths become relatively more important.

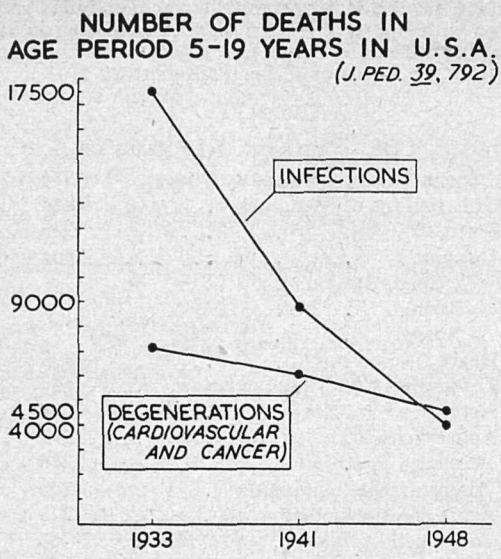


FIG. 7

Fig. 7 shows that the deaths from new growths and degeneration now account for more deaths than does infection.

May I draw your attention to two conditions in which tumours *need not* be thought of. The first is Precocious Puberty in girls. Exceedingly rarely, this is due to a granulosa cell tumour of the ovary, but it is nearly always *constitutional*. A new growth of the adrenal cortex produces virilism and not a true puberty ; and although certain brain lesions may produce early puberty these are accompanied by other local signs and symptoms—optic atrophy, etc.

The second condition in which new growth is diagnosed far more commonly than is justified is obesity in boys. May I recall that *Frohlich's disease* is a tumour of the pituitary producing dwarfism and infantilism, as well as obesity.

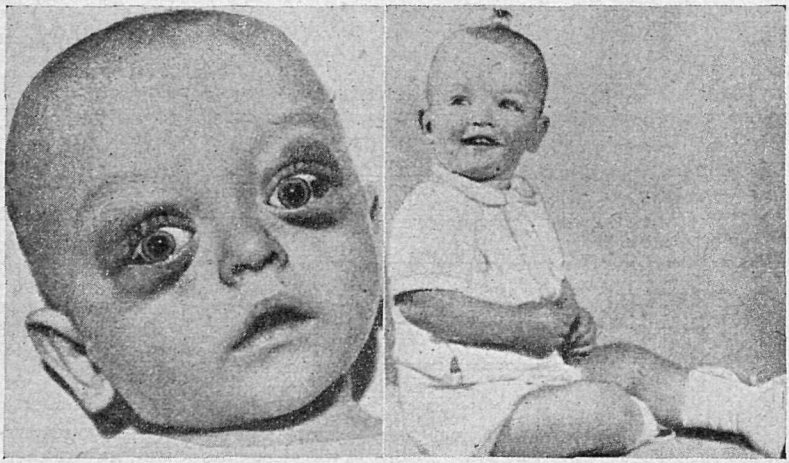


FIG. 8

FIG. 9 (from Goldring, 1951)

The common fat boy in your surgery will be *above* average height and have genitalia of *normal* size for his age. (His penis, like the dagger in Eglon (Judges, 3, 22,) may be swallowed up in his fat, but it is there, full size, if looked for.)

CONCLUSION.

In dealing with children, think of cancer when you find silent swellings or unusual symptom complexes, and remember the prognosis of cancer is not always hopeless. Here (Fig. 8) is a picture of a six month old boy with secondaries in his orbit from a neuroblastoma—Fig. 2 was from this case report. Fig. 9 shows him 18 months later. He has been cured. *Verb. sap.*

REFERENCES

Annotation, Cancer in Children, *Lancet* (1948), 1, 954.
Arnheim, E. E. (1951), (on teratoma), *Pediatrics*, **8**, 309.
Bodian, M. (1951), Demonstration at the Hospital for Sick Children, Gt. Ormond St., London.
Dale, J. H. (1949), (on leukæmia), *J. Ped.*, **34**, 421.
Dargeon, H. W. (1940), *Cancer in Childhood*, London.
Gaisford, W. F. (1949), (on cancer in childhood), *Arch. Dis. Child.*, **24**, 1.
Goldring, D. (1951), *J. Ped.*, **38**, 231.
Gross, R. E., and Neuheuser, E. B. D. (1950), (on treatment of nephroblastoma), *Ped.*, **6**, 843.
Walker, A. E., and Hopple, T. L. (1949), (on intracranial new growths), *J. Ped.*, **35**, 671.
(Fig. 3 is from a hypernephroma; fig. 4 from a nephroblastoma).

Correspondence

Second International Congress of Internal Medicine—Visit to Guy's

SIR,—On Thursday morning, 18th September, 1952, delegates from the Second International Congress of Internal Medicine will be visiting Guy's Hospital. I should very much welcome help from any students who have a good knowledge of a foreign language, who would be willing to act as guides and interpreters.

Yours, etc.,

W. N. MANN.

Review

Clark's Applied Pharmacology. By A. WILSON and H. O. SCHILD. Eighth Edition. Churchill. *Price 37s. 6d.*

Such is the energy of present-day authors that in few branches of medical knowledge can a new book be heralded by its sponsors as " meeting a long-felt want ". Yet in that zone of scientific medicine that extends from experimental pharmacology to accepted therapeutics an adequate and up-to-date text by English authors is precisely what is required. The new, eighth edition of " Clark ", one felt, would be exactly this.

In fact, on careful perusal, this new volume is something of a disappointment. The expositions of physiological principles given at the beginning of each section suffer at once from foreshortening and tradition. Not brief enough, frequently, to be clear, they yet lack so often reference to up-to-date views. Then, on pharmacological aspects, there tends to be a little of everything and something of nothing. As a result, whilst giving no full account of pharmacology as an academic subject, this book affords very little enlightenment to the physician or clinical student. Perhaps, after all, too much has been attempted. A more judicious selection rather than a comprehensive survey might have made it possible for scientific explanations to attend more fully on recognised practical measures. At the moment, there is about the writing in this volume, a suspicion of unfamiliarity with current therapeutic practice.

To call attention to certain other features is to carp rather than criticise. Misprints, though, are frequent, trade names are not always clearly delineated from pharmacopœial terminology and even infinitives are split.

All this is a pity, for as a reference " Clark " still remains unique and invaluable and in this edition there is the essence of so much good. G.

Saving Children in Hospital from Harm and Unhappiness

Anna Freud says a sick child has three needs : he needs his mother ; he needs to be told that he is not being punished but is still very much loved, and he needs to be reassured that he is getting better.

The immense importance for a child's health, physical, mental and spiritual, of undisturbed contact with his mother for the first three years of his life has recently been convincingly reviewed by Dr. John Bowlby, for W.H.O. (Dr. Bowlby writes on this subject in this month's *Family Doctor*.) Going into hospital is one way in which separation may occur. Separation is, therefore, to be avoided if possible ; and if unavoidable, made as brief as can be. We can try to minimise the break by admitting the mother to hospital with the child (whether or not she is breast-feeding him) ; by encouraging her to come in and see him and tend him every day ; by ourselves demonstrating to the child that he is a wanted person, stopping by him, being interested, picking him up, hugging him—" l'amour c'est le contact de deux chairs ". (Such visiting and such attentions seem to diminish rather than to increase the number of infections acquired by children after admission to hospital.) We can try to help older children by having lessons and whatever other activity is possible for them.

The Central Office of Information heard that (learning from Spence and Bowlby, Spitz and Bakwin) we try to see that children admitted to our care are as little upset as possible. It is sending round the world a story by Helen Dunt and 20 photographs by Frederick Carroll. Miss Duncombe and Miss Cook, the sisters in Diplock and Caleb Ward deserve this notice. They are supported by the kindliness which nurses, porters, ward staff, and students find time to supply some once rather forgotten needs of sick children in hospital.

July — **ACADEMIC**

		Exhibition. Surgical Department. " Some Developments of Joint Surgery."
		Exhibition. Surgical Department. " Osteoarthritis of the Hip."
12th	10.00.	Department of Surgery. Department Round, conducted by Mr. R. S. Handley of the Middlesex Hospital.
14th	5.00.	Professor T. Reichstein. Addison Lecture. Physiology Theatre.
14th	5.00.	Professor H. Sicher. Dental Clinical Lecture. " Functional Anatomy of the Temporomandibular Articulation."
15th	12.00.	Dr. J. A. Salzmann. Dental Clinical Lecture. " Orthodontic Principles in General Dental Practice."
17th	12.00.	Dr. J. H. Sillman. Dental Clinical Lecture. " Serial Studies of the Effect on the Dental Arches of Various Local Factors."
	1.00.	Mr. Wass. Clinical Lecture. " The Mysteries of the Female Breast."
18th	1.00.	Dr. Mann. Clinical Lecture. " Some Disorders of the Small Intestine."
19th	10.00.	Dr. Forman. Skin Demonstration.
21st	1.00.	Dr. Hind. Clinical Lecture. " Every Anæsthetist His Own Physician."
22nd		Dental Clinical Meeting.
22nd	1.00.	Dr. Baker. Clinical Lecture. " Cardiac Output " (with a film).
26th	10.00.	Clinico-Pathological Meeting. Clinical Theatre.
28th	1.00.	Dr. Thomas B. Fitzpatrick, Assistant Professor of Dermatology and Syphilology, University of Michigan. Clinical Lecture. " The Clinical Aspects of Pigmentary Disorders."

July — **SPORT**

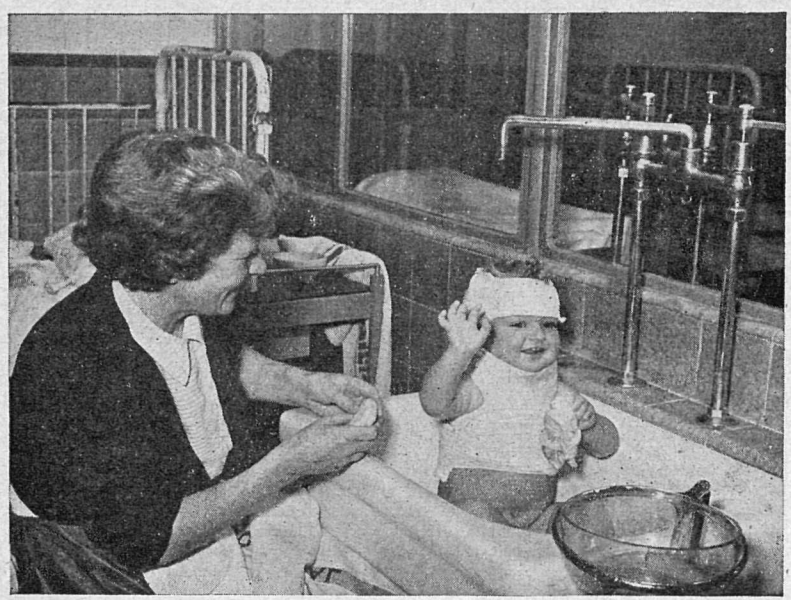
23rd	2.30.	Inter-Hospitals' Lawn Tennis Cup Competition (Guy's *v.* London). H.O.P.

C.O.I. photograph. Crown copyright reserved.

Sister Duncombe talking to the parents of Patricia, aged 4 in Diplock Ward.

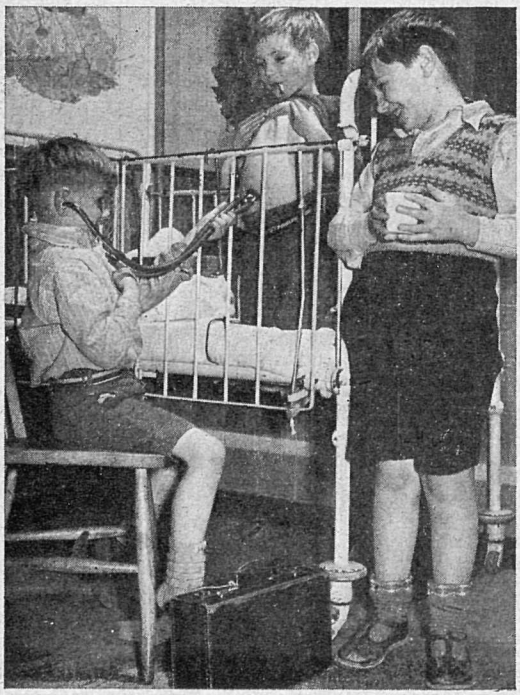
David, aged 6½, making the most of the toy cupboard in Diplock Ward

C.O.I. photograph. Crown copyright reserved.



C.O.I. photograph. Crown copyright reserved.

Mrs. Horgan who visits Diplock Ward daily to bath her thirteen month old Conner, and take him out in his pram into the Park



C.O.I. photograph. Crown copyright reserved.

David, Richard and Brian playing at "doctors", complete with stethoscope, doctor's bag and thermometer

C.O.I. photograph. Crown copyright reserved.

Children in Diplock Ward doing lessons and handwork under instruction from Miss Dora Weaver

C.O.I. photograph. Crown copyright reserved.

Convalescent children enjoying a game in the Park

Medical Practice in Australia

By SIR THOMAS WHITE, K.B.E., D.S.C.

The High Commissioner for Australia

The following article, kindly written by the High Commissioner for Australia, will, we believe, be of interest to those of our readers who may be considering entering medical practice abroad.

THE opportunities for both recent graduates and postgraduate doctors in Australia differ only in the type of practice that is desired. Available hospital positions are necessarily limited, and resident posts desired by some recent graduates are frequently filled, as they become due, by medical graduates from the Australian Universities. There are some positions available from time to time for Medical Superintendents of hospitals, and also for Senior Residents in certain States, more particularly in Queensland and Western Australia. These hospitals are mostly located in the northern parts of the States mentioned. There is little difficulty in obtaining locum engagements for short or longer periods, and these enable a graduate from overseas to obtain some idea of the type of practice to be found in suburban and country areas. Such work may serve as an introduction to private practice in a suitable area at a later date. There is no control of private practice in Australia except in some sparsely populated areas. Opportunities for Medical Assistants do occur, although not to the same extent perhaps as in Great Britain. They are more frequent in suburban areas, and usually in the industrial suburbs. They are advertised in the press, and in medical journals, and are usually negotiated through medical agents. General practice is carried on either singly or in partnership, and in particular, group practice is becoming more frequent. In this latter type of practice, group medical, surgical, obstetrical and radiological units are common. Purchase of a general practice is usually negotiated through a medical agent, but may be carried out directly. As a general guide, in the cities and provincial centres the purchase price is usually the yearly average of three years' gross takings, while country practices are usually sold at two thirds of the yearly average of three years' gross takings. Specialist practices are not so easily obtainable, and entail a period of waiting until the specialist is well known in the community. Honorary appointments at hospitals, which are considered desirable by those engaged in specialist practice, are difficult to obtain owing to the large number of local men with postgraduate qualifications who are available and waiting for these, most time for long periods. All medical practitioners must be registered with the Medical Registration Board of the State in which they practise. The requirements for registration differ in the respective States but, in general, it may be stated that practitioners from abroad who hold qualifications registerable with the General Medical Council, England, would be eligible for registration in Australia. This, however, is the prerogative of the Medical Registration Board in the State in which registration is desired, and practitioners interested should, in the first instance, communicate with the Secretary of that Board for a decision setting out in full particulars as to qualifications held. For convenience a list of the addresses of these Boards is attached.

MEDICAL REGISTRATION BOARDS OF THE COMMONWEALTH

The Secretary,
Medical Registration Board of N.S.W.,
Agriculture Building,
Farrer Place,
SYDNEY. N.S.W.

The Secretary,
Medical Registration Board of Victoria,
Department of Health,
295, Queen Street,
MELBOURNE. Victoria.

The Registrar,
Medical Registration Board of Queensland,
30, Mary Street,
BRISBANE, B.14. Queensland.

The Registrar,
Medical Registration Board of S.A.,
Martin Building,
141, Rundle Street,
ADELAIDE. S.A.

The Registrar,
Medical Registration Board of W.A.,
Shell House,
205, St. George's Terrace,
PERTH. W.A.

The Secretary,
Medical Registration Board of Tasmania,
HOBART. Tasmania.

Antibiotics in Dentistry*

By MURRAY A. WOOLF

AN antibiotic is a chemical substance derived from a living organism during its growth or metabolism which will inhibit the growth of, or destroy, other micro-organisms.

The term was first used in 1889 and was reintroduced by Fleming forty years later when he recognised penicillin. His discovery led to an intensive search for other such substances and to the realisation of their value as chemo-therapeutic agents. It only remained for Florey and his team of co-workers to elaborate the idea and bring about the first clinical trials in 1937.

Since then, over four-hundred antibiotics have been isolated and tested, but although endowed with anti-bacterial powers *in vitro*, most of them are far too toxic for use *in vivo*. The remaining few, at present about a dozen, are assuming a great part in the treatment and prophylaxis of pathological conditions.

To the dental surgeon, the antibiotics serve as a powerful weapon to add to his armamentarium and to use in combination with his surgical procedures. Many conditions which previously required protracted treatment can now be dealt with more quickly and operations which had previously carried considerable risk are now less hazardous.

The antibiotics, however, are no panacea ; their use alone will seldom achieve rapid cure. Nevertheless, in complement with other measures, they are invaluable, provided always that their drawbacks—allergy, resistance, side-effects, etc., are taken into account.

Penicillin

The antibiotics which are of use in dentistry may be listed in order of value, according to present-day experience, as penicillin (by far the best for general administration), chloromycetin, aureomycin, terramycin and streptomycin. Others which have some dental or oral value are tyrothrycin and bacitracin.

Penicillin, as is well-known, was first discovered by Fleming in 1929 and elaborated upon by Florey and his co-workers in 1937. Its use in dentistry, however, was not fully realised until 1943, when larger supplies of the drug became available and experience in dealing with it more widespread. By 1946 the methods of using penicillin in dentistry had become more or less accepted and it proved to be of inestimable value when used in cases of acute oral infections and for the purpose of providing chemo-therapeutic cover in dental and oral surgery.

Today penicillin is available for systemic administration by injection and in many different forms for local use. These include cones for placing post-operatively in sockets, powder for insufflation, troches, chewing gum and dentifrice, and a mixture with a cream base to form an ointment. Other agents, including the sulphonamides, may be added to penicillin preparations.

Systemic administration. Systemic administration by injection, usually intra-muscularly, produces a concentration of penicillin in the blood stream and most of the body fluids. There are two main forms, dissolved in saline for rapid absorption or combined with procaine for slow absorption. Used in this way as a prophylactic measure on patients with chronic or congenital heart disease, penicillin has reduced by at least 80% the number of cases of sub-acute bacterial endocarditis arising from the transient bacteræmia provoked by dental extractions.

Local conditions in the mouth for which penicillin is also of use systemically are acute inflammations of the soft tissues, such as acute gingivitis (e.g., Vincent's), pericoronitis, various forms of stomatitis and paradontal abscess ; also cases of acute alveolar abscess and osteomyelitis. In all of these the acute infection can be relieved quite quickly, usually within 48 hours, and local measures can then be instituted for the treatment of the cause. Osteomyelitis is, perhaps, a condition which shows up the value of the drug to its best advantage, for surgical intervention is then feasible at a much earlier date than

*Based on the essay for which the author was awarded the Dental Society Prize, 1952.

was previously possible. The line of demarcation appears quite soon after the administration of the drug has commenced.

Penicillin is also effective against syphilis and some forms of actinomycosis. Oral lesions of such pathology consequently respond to the systemic treatment of these diseases.

Local application. Post-operatively, penicillin can be used as powder insufflated into the wound, or as cones with a wax or other type of base placed in the sockets of extracted teeth. Evidence from the literature suggests that good results are obtained in the prevention of " dry sockets " by this means. For small, localised, oral lesions, penicillin may be given as lozenges or chewing gum, the claim then being made, especially for the chewing gum, that the drug so finds its way into otherwise inaccessible crevices and cracks. On the other hand, penicillin is very unstable, especially where, as in the saliva, the pH level is far from constant. An effective concentration may therefore be of very short duration.

Dental caries. The use of penicillin as a means of reducing the incidence of dental caries suggested itself to many workers. A controlled experiment was carried out by H. A. Zander in Boston, U.S.A., in the years 1949–1950. After experiments on rats, he introduced the daily use of a penicillin dentifrice to 235 school children, who brushed their teeth twice daily under supervision at school. As a control, another 174 children, who had no special care taken with regard to their oral hygiene, were observed in a neighbouring school. Zander reported in May, 1950, that there was a considerable reduction in the incidence of dental caries among the school children using the penicillin dentifrice. He also found a few cases of allergic reactions in this group, the symptoms disappearing when the special dentifrice was not used. These reactions were most common in children who had previously been treated with penicillin for some other condition.

Toxic effects. Prolonged use of penicillin locally in the mouth may produce a glossitis and also a pseudo, black, hairy tongue. This is due to the change in the bacterial flora which will restore itself to normal, in time, when the local treatment is withdrawn.

Another drawback to systemic administration is the fact that the only effective route is by way of injection. To a patient seriously ill with some disease, the constant jabbing at regular intervals with a not always too sharp needle can be a source of nervous disturbance and the fateful hour may be awaited with considerable apprehension. Since the oral route is unsuitable, because penicillin is inactivated in the alimentary tract, " depot " methods of injection are desirable, so long as adequate concentrations can be attained in this way.

Aureomycin and Chloromycetin

Both these drugs were isolated in 1948, aureomycin by Duggar, and chloromycetin by Ehrlich. They both have a wide range of antibacterial activity, possibly wider than penicillin, and have been used with success in many varied conditions. Their indications are virtually identical with those for penicillin. They can be given orally in dealing with intractible organisms which have become penicillin resistant.

Oral disease. Aureomycin has figured prominently in the literature, and in the U.S.A., particularly, its use has been recommended for nearly every dental and oral lesion. Rovelstad, writing in the American Dental Association Journal (July, 1951), claimed that acute alveolar abscesses in children could be rapidly resolved, without incision for drainage, by the early administration of this drug. He recommended its use for children, by the dentist, as a practical method which had little to contra-indicate it in such cases.

Stewart and Roth, writing in the same Journal in May, 1950, found it effective in the treatment of acute and chronic gingivitis and also Vincent's infection of the mouth and throat. They noted, however, that a yellowish discolouration of the tongue sometimes resulted from the treatment which disappeared when the drug was discontinued.

Also in the same edition, Everett recommended the use of aureomycin in the prophylaxis and treatment of herpes labialis and recurrent oral aphthæ. The results were not conclusive here however, as the relief from pain and resulting early healing might well be due to the control of secondary infection.

Side effects. More recently Tomaszewski, writing in the *British Medical Journal* of February, 1951, showed that both aureomycin and chloromycetin produced side-effects, those in the oral cavity being the commonest type found. The similarity between the lesions produced by both led him to consider them together. They were of three main types :—

1. Changes in the tongue.
2. Changes in the mucous membranes.
3. General changes.

The tongue changes were of two kinds, either atrophic or hypertrophic, and seemed to be worse in patients previously treated with penicillin and streptomycin. The tongue changes were reversed when treatment ceased, but sometimes took more than two weeks to return to normal. Discolouration was a common finding on the tongue and black hairy tongue was also noticed in a few cases.

The mucous membranes became red, and the patient complained of a feeling as if burnt by hot fluid. Other symptoms were loss of taste and sometimes of a bad taste, and in some cases angular stomatitis was found, usually in association with severe buccal or lingual lesions.

He noted that most of the lesions simulated those produced by avitaminosis B, and that vitamin B complex seemed to produce a rapid change for the better when given as part of the treatment. Stress is made then that the prophylactic and therapeutic use of these two antibiotics should be accompanied by vitamin B complex therapy.

Significantly also, in scrapings from the denuded tongue, the *Candida albicans*, a fungus, was found to be flourishing. Then came an article in December, 1951, by Pappenfort and Schnall on moniliasis in patients treated with aureomycin. They showed that aureomycin actually stimulated the growth of *Candida albicans* and other yeasts in conditions in which the antibiotic function of the drug could not operate, and they considered the growth-stimulating factor to be distinct from the antibiotic factor.

These side-effects must be noted carefully by the dental surgeon, for patients may present for examination with any of these oral lesions and the cause may be obscure unless care is taken in eliciting the information from the patient as to any medicaments or drugs he may be receiving from the medical practitioner.

Other Antibiotics

Terramycin is a new antibiotic, and although its use in this country is severely restricted to research, in the U.S.A. it has achieved quite considerable success and as yet no serious side-effects have been reported.

In cases of tubercular infection of the mouth, streptomycin is indicated as the antibiotic of choice. Another antibiotic, which may mean greater advances in tuberculosis therapy, is neomycin, which is as yet too toxic to be used in any but the most hopeless cases.

Tyrothrycin is supplied in the form of " Tyrozets ", a combination of two antibiotics and benzocaine. The two antibiotics are gramicidin S and tyrocidin, and the benzocaine is incorporated for its local anæsthetic effect in sore mouth lesions. A case of ulceration following its use has been recorded in the *British Dental Journal* of January of this year.

The Infected Root Canal

One of the most important branches of the dental surgeon's routine treatment is the infected root canal, and the sterilisation of these canals has for a long time been one of his greatest problems. With the advent of the antibiotics came the hope of a simple technique without the need for protracted changes of chemical dressings and without resorting to apicectomy. C. W. T. Shuttleworth, working at Guy's, showed that penicillin would permeate all the hard structures of the teeth from the root canal and this opened up possibilities of treating apical infections by this route. Many papers and reports have been published on the use of various antibiotics alone and also in combination for this condition. Grossman, using a penicillin-streptomycin-bacitracin and fungicidal agent combined in a paste, has claimed some very

good results. In every instance, it is the fungi that have remained immune to the antibiotics. For this reason Grossman employed caprylate sodium as the fungicidal material.

When considering a suitable substance for root canal therapy, it must fulfill certain conditions :—

(*a*) It must completely sterilise the canal.

(*b*) No irritant effect must be exerted on the periapical tissues.

(*c*) It must be easy to introduce into the root canal.

(*d*) It must be permanent.

(*e*) The permeation of the agent through the root substance and the sterilisation of any periapical area of infection must be complete to remove the need for apicectomy.

(*f*) It must not interfere with the regeneration and repair of the periapical tissues.

Grossman treated 250 pulpless infected teeth, both privately and in a dental school. The 128 cases treated by students showed that good results could be obtained by relatively inexperienced operators, provided that a proper technique was followed. His results showed, according to his tests, that 65% of root canals were sterile after one application, and 93% were sterile after only two applications. Only 17 out of 250 cases needed three or four visits.

Selzer and Bender, using streptomycin-chloromycetin paste and incorporating vitamin K5 as a fungicide, found 80% of their cases were sterile after one visit.

Cohen and Luks, using aureomycin and terramycin, found that they could be incorporated into an effective antibacterial root canal filling compatible with silver and gutta percha points, with a setting time of 20–30 mins.

In conclusion, the following points should be stressed :—

(i) The antibiotics are a great advance in dental chemo-therapy and prophylaxis.

(ii) Their use, combined with adequate surgery, can be of inestimable value in the treatment of patients.

(iii) Used rationally, with due care to possible side-effects, they constitute a powerful aid to the dental surgeon's ministrations.

(iv) Wherever possible a bacterial examination should be made before deciding which antibiotic should be used, and if in doubt, penicillin is the antibiotic of choice in the first place.

The search, of course, goes on, but the cardinal point to remember is that the antibiotics are an aid to medicine and surgery and in themselves not an end to all dental or any other ills.

One great difficulty remains with anti-bacterial therapy—that of drug resistance. The haphazard use of the antibiotics has inevitably contributed to this state of affairs. Ideally, when treating dental disease, as in the treatment of any other infection, the responsible organism should first be identified and then the appropriate antibiotic selected. However, until this policy of perfection proves practicable, the utmost caution should be exercised.

BIBLIOGRAPHY AND REFERENCES

Angleman, J. (1952), *Brit. dent. J.*, **92**, 24.
Cohen, M., and Luks, S. (1951), *J. dent. Res.*, **30**, 475.
Everett, F. G. (1950), *J. Amer. dent. Ass.*, **40**, 555.
Fleming, Sir A. Ed. (1951), *Penicillin*, 2nd Edition, London, Butterworth.
Florey, H. W., et. al. (1949), *Antibiotics*, London, Oxford University Press.
Grossman, L. I. (1951), *J. Amer. dent. Ass.*, **43**, 265.
Pappenfort, R. B., and Schnall, E. (1951), *Arch. intern. Med.*, **88**, 729.
Rovelstad, G. H. (1951), J. *Amer. dent. Ass.*, **43**, 52.
Selzer, S., and Bender, I. B. (1950), *Oral Surg., Med. & Path.*, **3**, 1279.
Shuttleworth, C. W. (1950), *Brit. dent. J.*, **89**, 127.
Stewart, G. M., and Ruth, L. H. (1950), J. *Amer. dent. Ass.*, **40**, 563.
Tomaszewski, T. (1951), *Brit. med. J.*, **1**, 388.
Zander, H. A. (1950), *J. Amer. dent. Ass.*, **40**, 569.

Sport

LAWN TENNIS

On Wednesday, 23rd July, 1952, Guy's (the holders of the Cup) are playing London Hospital in the final of the Inter-Hospitals' Lawn Tennis Cup Competition, at Honor Oak Park. Play will start at 2.30 p.m. and it is hoped that members of the Hospital, past and present, will come along and see the matches.

CRICKET

Inter-Hospitals' Cup. Semi-Finals

Guy's *v.* St. Thomas's Hospital

At H.O.P. Result—Lost.

Guy's 123. St. Thomas's 127–3.

Guy's batted first and made a very shaky start, our first wicket falling before any runs were scored. Feeble and unenterprising batting by the team caused Thomas's to get on top and at no time did Guy's master their attack, although Allan and Bisson Dath were unluckily out. Atkinson played a very hard-hit invaluable innings of 24 to become top scorer in a total of 123.

Guy's shook St. Thomas's batting, when two wickets were down for only 11 runs. Lyon was bowling extremely well and had not Webb, who made 78 not out, been dropped in the slips when he was 2, the match could have easily gone the other way. As it was, Guy's did not have one of its best days ; we lost the match and so the Cup, which we won last year.

Guy's

N. R. Cooke, b. Williamson	0
M. Williams, b. Williamson	12
D. M. Lipington, b. Mounfield	14
D. M. E. Allan, l.b.w., b. Mounfield ..	3
W. J. Howells, c. Hartley, b. Mounfield ..	17
E. R. Gibbons, b. Mounfield	10
H. R. Bissoon Dath, run out	12
F. Trist, c. Miles, b. Williamson ..	5
M. Lyon, b. Williamson	14
D. W. Atkinson, c. Kelly, b. Williamson	24
K. W. Gray, not out	1
Extras	11
Total	123

Bowling : Lyon, 10-1-43-2 ; Bisson Dath, 2 3-0-14-0 ; Allan, 3-0-13-0 ; Gray, 9-3-17-0 ; Cooke, 6-2-10-1 ; Atkinson, 1-0-9-0.

Guy's 1st XI *v.* Orsett

At H.O.P. Result—Won.
Orsett 153. Guy's 154–6.

Guy's

N. R. Cooke, b. Chinnery	46
W. J. Howells, b. Chinnery	0
E. R. Gibbons, c. Wells, b. Chinnery ..	6
M. Williams, not out	39
M. Dunstan, c. Saxton, b. Pullinger ..	0
H. R. Bissoon Dath, c. Hendry, b. Wells	24
M. Willis, st. Hendry, b. Chinnery ..	9
F. Trist, not out	28
D. Atkinson, did not bat.	
D. Robertson „ „ „	
N. Labuschagne „ „ „	
Extras	2
	154

Bowling : Labuschagne, 8-0-32-1 ; Cooke, 8-1-20-2 ; Bissoon Dath, 10-2-37-5 ; Trist, 3-0-14-0 ; Atkinson, 10-3-22-0 ; Willis, 6-0-26-1.

FENCING

Concluding matches of the Season 1951–52

Inter-Hospitals' Cup, Semi-Final

Guy's *v.* St. Bartholomew's

A 4-foil match was played on Thursday, 28th February, away, and won 9–7, Wilkinson and Lush each winning three fights.

Guy's *v.* King's College Hospital

This 4-foil match was played at home on Thursday, 13th March, and won 13–3.

Guy's *v.* Gaynswood

In this 4-foil match we had a lady playing for Guy's for the first time. The match was at home, and was lost 7–9 on Thursday, 27th March.

Guy's *v.* Old Merchant Taylors'

A 3-F.E.S. match was played at home on Monday, 28th April, and lost 14–10.

Inter-Hospitals' Cup

Guy's *v.* St. Thomas's

As previously reported this match was won 9–7 on Wednesday, 30th April.

Guy's *v.* St. Thomas's

During the course of an All-England Team Display at St. Thomas's on Tuesday, 27th May, a 1-F.E.S. match was fought and won 2–1.

Hospital Information, etc.

PAPERS BY GUY'S MEN

Annecke, S., and another. Relapsing Fever in South Africa. *Sth. Afr. med. J.*, 1952, **26**, 455.

Bishop, P. M. F., Bray, Barbara M., De Mowbray, R. R., Merivale, W. H. H., and Vaughan-Morgan, Josephine. Effect of Cortisone on Excretion of 17-Ketosteroids in Adrenal Virilism and Simple Hirsutism. *Lancet*, 1952, i, 1287.

Brock, R. C. Congenital Pulmonary Stenosis. *Amer. J. Med.*, 1952, **12**, 706.

Counsell, P. Brian, and another. The Association of Chronic Ulcerative Colitis and Carcinoma of the Rectum and Colon. *Brit. J. Surg.*, 1952, **39**, 485.

French, J. M., and others. Cœliac Disease : Gastro-Intestinal Studies and the Effect of Dietary Wheat Flour. *Lancet*, 1952, i, 830.

PASS LIST

CONJOINT BOARD

L.R.C.P., M.R.C.S.

First Examination

June, 1952

Anatomy

M. L. A. B. Bancilhon
W. R. O. Egginton
R. I. Henry
M. A. C. Lyon
Moira A. McLellan
B. S. Merry
G. B. Middle
R. I. Muir

Physiology

M. L. A. B. Bancilhon
J. Barrie
B. L. Dodson
W. R. O. Egginton
N. D. Gripper
R. I. Henry
M. A. C. Lyon
Moira A. McLellan
R. I. Muir

Pharmacology

M. R. Alderson
Barbara A. M. Allen
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T. A. P. Clarke
D. J. Davies
D. Dodshon
Sheila F. Evans
G. E. Fulford
I. C. Fuller
L. R. Jenkins
R. F. N. Jones
D. B. Longmore
P. R. Lyon
R. J. S. Milton
W. P. N. Moore

UNIVERSITY OF CAMBRIDGE

Final *M.B.* Examination

Easter Term, 1952

Part I. Pathology and Pharmacology (New Regulations)

*D. M. E. Allan
*P. F. A. Crawshaw
*A. Fairley
*H. W. S. Francis
J. M. S. Grieve
R. D. Hernaman-Johnson
*J. H. Kerr
H. E. Lichtenstein
*J. Liddell
*P. J. Lyne
W. A. G. Roper
*B. G. S. F. Vergano

Part II. Principles and Practice of Physic (New Regulations)

*D. M. E. Allan
L. P. Balfour-Lynn
*M. H. H. Bishop
*June E. Brett
N. P. Burns
*P. F. A. Crawshaw
*A. Fairley
H. E. Lichtenstein
*J. Liddell
*P. J. Lyne
*W. N. B. Parker
G. L. S. Rankin
*J. M. Rigg
G. Screech

Part II. Surgery (New Regulations)

L. P. Balfour-Lynn
*R. Baxter
*M. H. H. Bishop
*June E. Brett
N. P. Burns
*P. F. A. Crawshaw
R. D. France
*N. Gee
R. D. Hernaman-Johnson
H. E. Lichtenstein
*J. A. McHardy
*J. O. Ojukwu
*D. N. H. Owen
*W. N. B. Parker
G. L. S. Rankin
*J. M. Rigg

Part II. Midwifery and Gynæcology (New Regulations)

L. P. Balfour-Lynn
*R. Baxter
*M. H. H. Bishop
*June E. Brett
*P. F. A. Crawshaw
R. D. France
*W. N. B. Parker
*J. M. Rigg
G. Screech

* Have qualified M.B., B.Ch. (Camb.),

SOCIETY OF APOTHECARIES OF LONDON

Final Examination

June, 1952

Surgery

Joyce D. Waye

Medicine

J. U. MacWilliam
*G. L. Shaw
Joyce D. Waye

Midwifery

D. P. Adamson

* Has completed the examination.

UNIVERSITY OF LONDON BOARDS OF STUDIES

Prof. G. Stead and Prof. J. M. Robson have been appointed, for the remainder of the year, members of the Advanced Medical Studies Board.

APPOINTMENTS

Dr. G. Blake Palmer has been appointed Lecturer in Mental Diseases, University of Otago, New Zealand.

H. L. Brunow, M.B., Ch.B., F.R.C.S. Eng., has been appointed Surgical Registrar to the Brompton Hospital, S.W.3.

Dr. B. J. Stephens has been appointed Consultant Pathologist to Cardiff Hospital Management Committee.

CHANGES OF ADDRESS

Noel Gillman, M.B., B.Ch., White Lodge, Kintbury, Berkshire. Tel. : Kintbury 294.

E. G. Murphy, M.B., B.S., The Hospital for Sick Children, Toronto, Ontario, Canada.

Kenneth Pritchard, L.D.S., R.C.S. Eng., 121, Harley Street, W.1. Tel. : Welbeck 6818.

BIRTHS

ATTALE.—On 27th June, 1952, at St. Georges Wood, Haslemere, to Margot (née Kearney), wife of Jeffery Attale—a second daughter.

CAMPBELL.—On 25th June, 1952, at St. Brenda's Nursing Home, Clifton, to Mary (née Clarke), wife of Dr. A. M. G. Campbell—a daughter (Fiona Mary).

HARVEY.—On 16th June, 1952, at Churchill Maternity Unit, Oxford, to Kathleen (née Wood), wife of P. D. Harvey—a daughter (Penelope Anne).

SCOTT.—On 1st July, 1952, at Bexhill-on-Sea, to Esme (née Pascall), wife of Dr. Leslie Scott—a son (Stephen David).

MARRIAGES

HERST—GREEN.—On 5th July, 1952, at Christ Church, Wimbledon, Edward R. Herst, M.R.C.S., to Pamela E. Green, M.B.

HOLMAN—GARLAND.—On 7th June, 1952, at East Hoathly, Sussex, John Colgate Holman, M.D., M.R.C.O.G., to Elizabeth Alice Garland.

HOLDING—MARTIN.—On 5th July, 1952, at Bradninch, Devon, Guy Holding, L.D.S., R.C.S. Eng., to Frances D. Martin, M.S.R.

REY—WOOD.—On 21st June, 1952, in London, C. Humphrey J. Rey, M.R.C.S., to Thelma M. Wood.

Eds. { P.A.Z. E.E.D.T.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1670 26*th July* 1952 *One Shilling*

PASSIM

THERE is no need to look very far among the publications offered in great variety on the average bookstall for evidence of increasing interest in what may be described as " popular medicine ". The principles of human physiology and their application to common—in the sense of familiar—ailments, occupy the attention of the editors of a variety of semi-technical journals. Non-technical pictorial magazines publish from time to time accounts of certain medical and surgical procedures in articles which are (despite grave exceptions) for the most part commendably objective. At least one notable daily newpaper has carried a series during the past few weeks designed to re-assure those who, in fear of disease, cannot readily summon courage to seek professional advice. Another publishes almost daily a " strip cartoon " of medical interest, though declining to enter into correspondence with its readers on the matter it portrays.

In all these respects the popular press appears to be, as it were, feeling its way ; and while there may be some question as to the authority of its utterance, no criticism on this score could be levelled at a relative newcomer—*Family Doctor*, whose publication is backed by the British Medical Association itself.

Every effort, sincerely made, to educate the average man and woman in common-sense medical matters is to be commended and encouraged. But the roots of superstition probe deeply into primitive human instinct, and the influence of the witch doctor, whose devices are remarkably displayed in an exhibition lately opened at the Wellcome Historical Medical Museum, still survives in the mumbo jumbo which has accompanied the less well-considered activities of a minority of irresponsible " practitioners " to this day. It is surely against such superstitions that semi-official and official publications on " popular medicine " are endeavouring to direct public opinion. That they are achieving success is undeniable. Commercial journalism cannot exist on mere philanthropy : it flourishes on popular demand. Moreover, the upsurge of this desire for practical enlightenment on medical matters is widely countenanced by a profession which (so far as complexity allows) is willing to lay its cards on the table.

It is all the more surprising therefore, to find a directly contrary and opposite trend in popular thought flourishing greatly at the same time : a trend of thought which bids fair to insinuate itself into the philosophy of the very movement which might, by the widespread dissemination of practical medical education, be calculated to effect its destruction. No less an authority than Dr. Leslie Weatherhead, the minister of the City Temple, London, presented, not many days ago, the report of the spiritual healing committee at the Methodist Conference at Preston. He issued a warning concerning the grave risks in services where " healing " is practised. Some meetings, he alleged,

where this activity finds a place, were characterised by a dangerous mass hysteria. The " healings " claimed were given great publicity, though, in his opinion, few patients received permanent benefit, and the ephemeral nature of the cures was not sufficiently admitted. In many instances the " healer " knew nothing of his cases, used the same technique for all patients, and put the onus of having faith on the sick persons themselves.

There is little doubt that Dr. Weatherhead's timely warning receives the support of the great majority of whatever church or creed. The witch doctor in medical practice has his opposite number in the ministry of the spirit. Only by close co-operation between doctor and minister—a co-operation urged by the ethical committee of the British Medical Association—can the teaching of the Great Physician stand uncompromised in our Christian community.

In this community hospitals play a vital part. Those who work there—in whatever capacity—have unrivalled opportunities of unmasking superstition. It is a far cry indeed from the " healer's " mass meeting to the scene in many a hospital ward, when, at the end of the day, patients and staff join in simple evening prayers. There is here a complete absence of pretension, mass-hysteria or quackery. Strength of body and peace of mind surely spring from foundations such as these.

On July 14th Sir Heneage Ogilvie retired from his position as Senior Surgeon at Guy's Hospital. He conducted his last teaching round that day—his sixty-fifth birthday—before a large gathering which included many of his colleagues on the staff, and a great number of students. It was a memorable and moving occasion.

Sir Heneage, who now becomes Consulting Surgeon Emeritus, thus ends an active association with Guy's Hospital, interrupted by service in two world wars, extending over a period of some 42 years. He carries with him the affection of a multitude of patients staff and students, all of whom have, in their varying ways, experienced the privilege of his skill and the warmth of his personality.

But in bidding him " Farewell " we certainly do not say " Good-bye ", for we hope often to see his familiar figure among us in the future, and we extend to him and Lady Ogilvie our warmest wishes for many years of happy and active retirement.

In this issue we print a personal appreciation, and also the text of his last Clinical Lecture delivered in the Medical School earlier this month.

On Sir Heneage's retirement Mr. S. H. Wass, who has been Assistant Surgeon since 1946, now becomes a full surgeon.

A few weeks ago Dr. Sterling Bunnell, Consultant Surgeon to the United States Army for hand injuries, and widely recognised as the " Father of Hand Surgery ", visited the Front Surgery in company with the Casualty Surgeon, Mr. Patrick Clarkson.

Out-Patient officers and dresser had an opportunity of discussing with him the treatment of patients with hand injuries and infections—he is the author of the standard book on this subject—and he was able to see the arrangement of the hand accident theatre and get an idea of the teaching methods employed here. His visit, made in the course of a short stay in London, was much appreciated by all those who had the privilege of meeting him.

SIR WILLIAM HENEAGE OGILVIE

K.B.E., D.M., M.CH., F.R.C.S.

Entered Guy's 1910. *Surgical Registrar* 1920. *Assistant Surgeon* 1925. *Surgeon* 1938. *Consulting Surgeon Emeritus July*, 1952.

W. H. O.

WHEN I came to Guy's in 1929 I was told about the now extinct appointment of " Fifth Assistant Surgeon ". This person, I was informed, was a dogsbody, or general errand-boy for the other surgeons. When a senior surgeon was fatigued and his assistant otherwise engaged, the cry was, " Send for the 'Fifth Assistant Surgeon ' ". During August, at Christmas, at Easter and no doubt at Whitsun, the " Fifth Assistant Surgeon " was in constant demand. " Who ", I enquired, " is this menial ? " " A chap called Ogilvie ", they said. It was with some surprise, therefore, that when I met this functionary I found him distinguished, confident, a little aloof, and imparting to his humble office a dignity which was an inseparable part of himself.

For some years as a student and not being on his firm, I hardly knew Ogilvie ; but meanwhile learnt that he sailed, and I had always assumed that those who sailed were slightly mad, an impression which a closer acquaintanceship with this sport has convinced me is correct. At this time I doubt if he knew of my existence, and I saw him as a distant, somewhat unapproachable, slightly unpredictable member of a heirarchy which was outside my range. Twenty-three years later I have been accorded the sad honour of writing an appreciation in the *Gazette* of one of my greatest friends, Sir Heneage Ogilvie who, to our sorrow retired from the full staff of Guy's on his sixty-fifth birthday, 14th July, 1952.

As the years went by sobriquets have come and gone, the discreet and non-committal " W.H.O." gave place to the less euphonious and somewhat disrespectful " Og ", but as his colleagues and his juniors have gradually got to know and grown to love him, he has been increasingly referred to by young and old alike as " Heneage " and it is of " Heneage " therefore that I shall write.

Some men, like some pictures or books, or pieces of music, can be comprehended on first acquaintance ; with others sometimes years are necessary before their full worth is appreciated ; and so it is with Heneage. When I became his Registrar I realised one thing : here was a man whose interest in surgery was abiding and profound. Merely to be in his theatre whilst he was operating and to catch the pearls which were dropped with a charming non-chalance was an education in itself ; but to assist him at an operation and to learn those hundred and one little things which in sum make the difference between success and failure, was a privilege which a young surgeon treasured for the rest of his life. Perhaps he was known better as a post-graduate than an under-graduate teacher, and for the former his value was unrivalled. Generations of Guy's surgeons are more skilful, more careful, more thoughtful and with higher standards because of his influence.

No one could be associated with Heneage for long without appreciating his sense of humour. His teaching was sprinkled with witticisms sometimes barbed, but never with malice, and delivered with what has now come to be known as that " dead pan " which so enhanced their effect. " Tumours of the stomach ", he taught, without a flicker of a smile, " are like barmaids ; some of them are innocent, but it is necessary to take them out before you can tell which are which." No undergraduate on his firm is likely to forget the treatment for innocent tumours of the stomach ! Heneage is vague, too, in a way that added to his attractiveness. Only Lady Ogilvie, to whom he owes so much, could tell of the railway tickets thrust into his hands at the last moment, and the little pieces of paper telling him where he should be at certain times of the day.

He was a great traveller, and shortly after the 1914–18 war founded the Surgical Travellers' Club which was organised and held together by him and Lady Ogilvie, so that it flourishes today and is the means whereby surgeons from all over the British Isles and abroad meet in good fellowship and form friendships which are enduring.

Once, when we had visited Rollier's clinic at Leysin, involving a long drive through the mountains in a bus engaged by the Surgical Travellers, Heneage decided to make a collection for the driver. He carried his hat round and we all put in our pieces of silver so that the hat held a goodly collection by the time he had finished. When we got back to our hotel, Heneage was deep in conversation about strictures of the common duct. Lady Ogilvie broke up this

discourse, which might otherwise have gone on for a long time with, " Here we are—out you get." " Oh ", said Heneage, " so we are " ; and with that he clapped his hat on his head with an effect so scintillating that only flood-lighting could really have done it justice. Silver poured down him in a cascade, and for the next ten minutes surgeons with European reputations could be observed crawling under seats and all over the floor of the bus retrieving coins, urged on by cries of encouragement from their wives.

Whenever he travelled Heneage took with him the sound common sense and the best traditions of Guy's Hospital which he represented. At about the time when I became his Assistant Surgeon his writings were becoming known throughout the world, and his reputation was recognised by his election to the Council of the Royal College of Surgeons of England.

As a writer he is without rival in the surgical world. His prose is masterly, his style flows, and his wit, always pointed, is never artless. It would be possible to quote endlessly from his writings to substantiate this claim. Perhaps the greatest pleasure, apart from instruction, is to be had from reading his famous volume of essays, " Surgery, Orthodox and Heterodox " ; but nothing that he wrote was ever shoddy, and even those little notes dashed off before he went to bed about some matter that occurred to him, were delightfully and humourously phrased—" I regard X as entirely self-taught, with an unbounded admiration for his teacher "—and are stored by their recipients to be chuckled over from time to time.

With his appointment to the Council of the College of Surgeons his interests widened and his duties multiplied. It was a great piece of good fortune that the visit of the International Congress of Surgeons to this country coincided with Heneage's term of office as Vice-President of the College. That week, which will always be remembered by us at Guy's as the week Dr. Blalock arrived on his first visit, was filled for Heneage with official dinners and receptions at many of which he spoke, and as an after-dinner speaker he was unrivalled. That same dry, spicy, yet elegant humour which informed his writings, came tumbling out to the delight of his audiences. Generally his speeches were prepared, but if he were called upon to give an impromptu vote of thanks he was never at a loss for the appropriate word nor for that genuine expression of praise that warmed the hearts of his hearers, and made the speaker of the occasion his friend for life.

During the war Heneage rose to the rank of Major-General, and for his services he received the honour of K.B.E. Although he had great responsibilities I believe it might be true to say that he enjoyed his war. He was given an unrivalled opportunity for indulging his favourite occupation of ranging the world, making new friends and talking " surgery " without limit. Wherever he went he saw, he appraised, and he acted so that the surgical services of the M.E.F. moved efficiently and without friction.

Great men must have their foibles and perhaps Heneage's foible is that some of his swans turn out to be geese. So firmly is his own genius planted in a soil of good common sense, flawless integrity and solid hard work, that he is sometimes unable to understand that a flighty imagination may be tethered to nothing more substantial than unenlightened enthusiasm. But that is just a facet of his character inseparable from his eternal youth. Watch him at Burnham on a Saturday afternoon, leaning far out to windward in an attempt, not always successful, to keep upright the little sailing boat which threshes through the sea, or drawing the lines on the table-cloth of the new cruising sharpie which he has designed to transport his youthful spirit, like Ariel, to the islands of delight ; then you realise that retiring ages and tiresome regulations bound to the calendar have their defects. Never has a man retired from Guy's more full of life, of vigour and of untarnished enthusiasm than Heneage.

Something, I think, must be said of his courage. His is a fearless nature and if he thought a course of action was right, however unpopular it might be, he genuinely disregarded what people might think of him for pursuing it. On the sea as in his personal relations we may say, " Here is a man ", and as he leaves this great hospital he takes away something of its strength, something of the fine reputation which he so largely helped to build up, and he leaves behind him a group of men who esteemed him as a colleague and who are proud to call him their friend.

H.J.B.A.

Guy's Surgery

By SIR HENEAGE OGILVIE, K.B.E., D.M., M.Ch., F.R.C.S.

A Clinical Lecture delivered on 8th July, 1952

LADIES AND GENTLEMEN,—This is my last lecture at Guy's. When I was first appointed to the staff twenty-seven years ago, my old chief Sir William Hale White took my arm as I came down the steps of the Colonnade, and walked me through the Park. " Before you leave Guy's ", he told me, " you will come to know and love every stone and every brick in these buildings." And it is true. The Park on a sunny afternoon or on a Sunday, when the Guy's men and women of the present are spread out on the benches or on the grass, and the Guy's men and women of the future are making mud pies in the sandpit, has all the peace and charm of an Oxford College, and seems to breathe the spirit of a university.

What do I mean by the spirit of a university ? Something very vague. A university differs from a school or a faculty in that it comprises many branches of learning linked together in a common framework, so that its teachers and its students live and work in an atmosphere of endeavour and of culture that must expand their outlook and influence for the better their approach to their own subject. The functions of a university are broadly two : the inculcation of learning, and the certification of its scholars as having learned up to a certain standard, that is, the awarding of degrees. The first function is wholly admirable ; the second is more questionable. A university degree is at the same time a hallmark of excellence and a bait to attract more students ; the first demands that it should be awarded only for work of a high standard, the second that it should be attainable by all but the very stupid. Where the examinations in a university are largely conducted by external examiners there is a certain safeguard about the quality of the degree, though not a very effective one, for few guests have the courage to make rude remarks about their host's children. But there is an increasing tendency for universities to insist on internal examination, and to allot marks for class work as well as for examination results. Where this is the case the university becomes its own judge and can hardly restrain its admiration for its own students or their teachers. This is a matter of serious concern today for the teaching at some universities is well below any standard that should be tolerable. There is one whose medical students receive no adequate anatomical teaching. The Professor of Anatomy is a crotchety psychopath whose sole interest is in the study of the skulls of prehistoric man. He does not teach his subject. He is not competent to teach it. He has had good demonstrators but he cannot keep them. Every year he examines a fresh batch of students to his own incredibly low standard, and passes them on to the wards, ignorant of a subject which is basic in medical education. Twice in my report to the Principal of this university I have commented on the lamentable state of anatomical teaching, but without effect. University professors are never sacked ; like Guy's patients, they never die ; but unlike Guy's patients they do not even fade away.

I have wandered from my main subject of Guy's surgical teaching because I believe this subject of university degrees to be important. Today the competition for higher appointments in medicine and surgery is very strenuous, and in many posts a university degree, an M.D. or an M.S., is almost essential. It is unfortunate that these magic letters when awarded by one university should be a guarantee of a high standard of excellence, and coming from another university should mean a great deal less than a Membership or a Fellowship. Only when the students from all universities have to pass a national as well as their own parochial qualifying examination will the level of teaching in the poorer universities be raised, and the public be assured that a qualified doctor really does know medicine and that the holder of an M.S. really is a Master of Surgery.

The first function of a university, however, the inculcation of learning, is fundamental, and it is here that the spirit of a university differs, or should

differ from that of a school. A school teaches us what to think, a university teaches us how to think. A school gives us lessons and repeated checks to ensure that we have learned them, a university gives us opportunities to learn, and every possible help if we are puzzled. A school consists of masters and pupils, a university is an association of scholars of various degrees of seniority for mutual help and discussion, and it is axiomatic that the seniors and the juniors are equally students.

When the thousand years of darkness that followed the fall of Rome started to clear, three universities appeared about the same time in the twelfth century, in Paris, Bologna and Oxford, but it is significant that none of these universities was founded as such. How they started is unknown, but in each case there was first a spontaneous aggregation of scholars, and only later buildings and a constitution. The scholars came together in Paris and Bologna because they were flourishing capital cities. They came to Oxford for the opposite reason, because in those troubled times the marshes of the upper Thames gave them the seclusion and freedom from molestation they needed for their studies. I always like to think that Guy's, above all other hospitals, preserves the university spirit, just as Guy's is the first true voluntary hospital, founded by one charitable citizen and owing nothing to a religious order, a patron saint or a city company. We may have gone a long way from the study groups who lived in poverty on the banks of the Isis and the Cherwell, and it is perhaps an insult to liken my assistant surgeon or my gynæcological colleagues as they roll up in their gorgeous cars to the ragged and ill-fed scholars who pored over their manuscripts by the light of a rush dipped in mutton fat. But the spirit is the same. The great thing about Guy's is that there are no superior persons, and that superior persons, of whom there are far too many in our profession today, could not survive in the clean and healthy atmosphere of the Boro'. The spirit of Guy's teaching is the spirit of apprenticeship. Among our teachers there are none who will not gladly admit that what they know, what they have read and learned from their work, has been constantly shaped and modified by their talks with colleagues, registrars, Sisters, housemen and dressers, and that they have been saved from the complacency that usually comes with advancing years because they have always had to support their statements and their actions in face of the comments of seniors and juniors. No Guy's teacher has ever taken the line that is the hallmark of futility, " That is so because I say it is so ". No Guy's student has, I hope, ever felt that he cannot ask for an explanation to a puzzle, or criticise some treatment that appears to him to be wrong. The Guy's man when he goes out is equipped with a knowledge that is enduring, because it is his own, acquired by him at the bedside and matured by reading and discussion.

What is the medicine that we learn in Hospital ? Is it not simply the basic knowledge that must underlie all medicine—Anatomy, Physiology, Pathology and common sense ? Anatomy is the study of how the human body is made. Physiology is the study of how the body works. Pathology is the study of what goes wrong with the structure and working of the body—how it wears out, how it reacts to deprivation of the normal fuel on which it works or of constituents of that fuel, how it responds to trauma and to the attacks of its enemies visible and invisible, and how it repairs the damage that has been done by disease or accident. Common sense is the practical body of knowledge that we build up for ourselves by the application of what we have been taught of the basic sciences, to what we have encountered in the wards. Just as the general principles of law which are laid down in Parliament are interpreted by a series of actions heard in the courts and become the case law by which our lives are administered, so the general principles of Anatomy, Physiology and Pathology that have been taught us in the medical school are built up by our experience in the wards into an individual body of case-medicine which is our personal possession, something that we have constructed out of the bricks that were given us, something that we shall go on adding to, modifying and improving, but someting that will be the basis of our work while our lives last.

It is a little difficult for those who are as young as you are and who are thrilled as you must be with the tremendous discoveries being made all round you, to realise that the body of knowledge is something very simple. I once

wrote a book on Recent Advances in Surgery, and when I came to study my brief, I realized at once that the title was a contradiction in terms. What is recent is seldom an advance, and what is an advance is seldom recent. Of all the articles that are written in all the journals of all countries in a year, the majority record no more than a passing fad. What is new is seldom sound, but what is old is at any rate sound enough to have survived the attacks of several generations of novelty hunters. A new discovery is only an advance when it has been tested and tried and consolidated into a firm basis from which further advances can be made. Think only of surgery, think of a reasonable period like ten years, think of the advances that have been made in that time. What are they, and where are they ? The operation for removal of a herniated intervertebral disc, the various operations on the sympathetic system for the treatment of hypertension, the various shunts between the portal and systemic veins for the treatment of portal hypertension, the operation of vagotomy for the treatment of peptic ulceration, all are still fashionable ; but all may soon be on the road taken by all novelties, the road that starts with the front page of the catalogue and the front place in the shop window, that goes by way of the back counters to the bargain basement, and that ends in the dust bin. Before any of you have seen your sons come to Guy's and qualify, most of the newer methods of diagnosis and most of the current antibiotics will have been displaced by something newer. But the simple methods of investigation, the taking of a careful history and the examination by the standard methods of inspection, palpation, percussion and auscultation will remain the basis of your diagnosis into which the reports from the X-ray room or the laboratory must be integrated. The summing up of the information you have so acquired in the light of your experience of similar cases in the past will be the measure of your standing as a doctor. The treatment you adopt will be based on the simple needs of your patient as a fellow human being, on the prescribing of rest, mental and physical, on assessment of his needs in food and water, on the provision of clean surroundings and above all good nursing, and on giving him the assurance that, having taken his life into your keeping, you will not let him down. Only on this background of essentials can your specific drugs and your operations exert their fullest effect.

I think we all remember our first case. I can remember my own, one of those bizarre curiosities that are never repeated. A small boy of eight was running down a street in the Boro', when he felt a sudden stinging pain in his right knee. He limped home, but by the evening the knee had started to swell and his mother brought him up to the surgery, from where he was admitted as a take-in case to Cornelius Ward, now taken over from its use as a place for the sick to serve the needs of the administrative octopus. The boy looked well, but was in pain. He had a slight temperature. His knee joint contained fluid and a patellar tap was demonstrated by the Registrar, who discussed the differential diagnosis of monarticular arthritis at the age of eight. He very rightly gave subacute osteomyelitis of the lower end of the femur as the most likely cause, and pointed to a small spot above the patella as a possible source of the organisms. The leg was fixed on a back splint, and four-hourly hot fomentations were applied to the knee, and I had to apply them. When I changed the first, I noticed a violet stain on the lint. When I changed the second the whole dressing was purple, and for the next week a copious flow of deep purple fluid came from the little hole where the spot had been. The discharge ceased and the boy got well. Clearly some school-fellow had run out of pellets for his new air gun, and being unable to renew his stock, had broken up the lead from an indelible pencil into suitable missiles, and had wounded my patient with one of them.

Our first case is an adventure. We approach the bedside nervously, but we are immediately set at ease by finding that the patient accepts us as the " doctor ", and as a doctor we are trusted with a complete confidence and a complete frankness that are never accorded to a minister of religion, or even to a parent or spouse. Parsons are good men who will be shocked by human weakness, parents are people who want to improve us, wives are apt to use any confession as a weapon in the next domestic quarrel ; but a doctor is a human being like ourselves, one who understands our fears and our frailties, one whose only desire is to help us.

We are told to " elicit " a history. We must never do that. A lawyer " elicits " a history because he is not interested in the truth, but only in producing, by the way he puts his questions, a story that will suit his case and convince the jury. A busy doctor may have to elicit a history when there is a queue waiting behind his patient. But a student or his teacher must let the patient tell his story in his own way, asking questions to clear up some obscurity or expand some brief statement but never suggesting an answer. Only in this way can we learn what is troubling the patient, and how it affects him. The less educated he is the more does truth ring in his simple sentences ; the hopeless historians are those who have too much education for their intelligence and who will use words like " dyspepsia ", " malaise " and " non compos mentis ". When he has settled down to his narrative, we may uncover the part where the trouble is, and look while we listen. When he has finished we tidy up the story by asking for information on points such as loss of appetite or loss of weight which he has omitted. At the end we know not only the trouble which has brought him to us, but we have summed up the patient as a man and have a fair idea whether he is imaginative or truthful, timid or courageous, interested in himself or in others, prone to minimise or prone to exaggerate. With this rough yardstick we shall tone up or down the further symptoms that we discover.

Next to the history, inspection is the most important method of examination, yet one all too frequently neglected or performed hurriedly. One examiner at the Fellowship is always telling unsuccessful candidates, " How can you expect to diagnose anything if you will cover up the physical signs with your hands ". By inspection we learn about symmetry, the texture of the surface (*peau d'orange*), the vascular pattern (enlarged veins suggesting deep obstruction), colour, contour, swelling, pulsation. We learn also how the appearance changes during change of position of the body as a whole and during movements of the part by contraction of muscles, swallowing, straining, coughing or deep breathing. Much more can be seen than can be felt. The level of a pleural effusion can be recorded more accurately in a thin person by watching his intercostal spaces while he breathes, coughs or talks, than by percussion. A small hernia or a small thyroid swelling can be seen when it cannot be felt. A cervical sinus produces a dimple on swallowing at the anterior border of the sterno-mastoid that will pass unnoticed if the patient's neck is under our fingers when he is asked to swallow. A small and early cancer of the breast can be recognised with greater certainty by comparing the contours of the two breasts as the woman stands, raises her arms, leans forward, lies down, and rolls first to one side and then to the other, than by palpation. Transillumination is a specialised form of inspection that is called into play when we know or suspect the presence of air or fluid near enough the surface to transmit light.

Palpation gives us further information by the sense of touch, and it becomes more and more useful as we educate that sense by practice. We examine the shape, texture, consistency and temperature of a part and compare them with the normal as displayed on the opposite side or as learned from examination of normal people. We test movements, active and passive, and the movements of one structure on another, and decide whether those movements are normal, limited or excessive. We find whether the movement of parts, such as joints, that should move, is smooth or accompanied by clicks, grating or sudden arrest. We find the contraction of muscles that protect a painful movement in a joint or a painful area in the abdomen. We find tenderness. We find those abnormal structures which we call lumps or bumps and investigate their consistency, whether they are hard, soft, or fluid, how they move with or on surrounding structures, whether they fluctuate, whether they pulsate, whether they are reducible by pressure and whether they give an impulse on coughing.

Auscultation and percussion use the sense of hearing to determine the presence or absence of normal sounds or the appearance of abnormal ones, and to map out the boundaries between tissues which do and do not contain air. Sounds are produced by vibrations, and it is only in hollow tubes that

they are normally produced in the body. The respiratory, the circulatory and the alimentary apparatus, all produce sounds in their normal workings with which we become familiar, and abnormal ones that we must learn to recognize when we meet them. Percussion allows us to recognize the normal anatomy of air-containing structures such as the trachea, the lungs, the stomach, intestines and colon, to tell whether they have been displaced by non-resonant materials such as a pleural effusion compressing the lung, a large spleen or a full bladder displacing stomach or intestine, or a goitre pushing the trachea to one side, and whether gas is present in abnormal amounts as in a dilated stomach or colon, or in abnormal situations as in pneumo-peritoneum or surgical emphysema.

Having collected our facts we now must sort them out, piece them together, give to each its appropriate weight in our summing up, and come to a decision. In this we cannot rely on any worked-out tables such as those to which the navigator can turn when he has got the sun's altitude and the time signal from Greenwich, or the chart in the little book that is handed out to us with a new car that tells us how to find out why it has stopped. We must rely on our own clinical sense, that is on a judgment based upon experience of other cases, not necessarily similar ones. This clinical sense is something we can only acquire for ourselves, and there is no place in the world where men acquire it as surely and as successfully as at Guy's.

The reason is that with which I started, that at Guy's we are all students. We do not give instructions but we give abundant opportunities to learn, we do not teach but we stand by to answer questions and explain the things that we learned when we travelled the same road. We must build up our own clinical sense and we can build it up only by making decisions on every case we examine or care for. The decision may be merely a provisional one, " On the facts I have discovered so far, or on the progress of the malady so far as it has developed, the most likely possibilities are A, B, and C, and of these I back B till I have reason to alter my opinion." But it must be definite and if possible committed to paper. To start with, our decisions will be wildly wrong. So much the better. So much more will we learn from them and so much more will we remember the lesson when time, the Registrar's round, the operation or the post-mortem tell us the truth. Whether we were right or wrong we have added something to our knowledge. But if we hedge, if we make no attempt to back our fancy between A, B, and C, if we vacillate between dozens of alternatives or content ourselves with some wise remark like " I suspect there is some mischief in the peritoneal cavity ", we can always say afterwards, " Ah, I thought of that ", and lapse into a state of complacent futility that passes by all opportunities for acquiring wisdom.

In this sense, attendance at Out-Patients' is one of the most educative experiences at Guy's. When a case is admitted to one of our beds in the wards, one all-important fact is handed out to us without our having to find it out—that there is really something the matter. All we have to do is to find out what it is. At Out-Patients' we are faced with a series of " What-is-it ? "s in which we start from scratch. The patient before us may be seriously ill, she may have been reading an article on cancer in the *News of the World* and have come in fear for reassurance, or she may merely have come to Guy's as an excuse for a day off from the factory and a chance to show off her figure and her nylon scanties to a group of handsome medical students. Out-Patients' gives us a wonderful chance to develop homely psychology in assessment, clinical sense in diagnosis, and common sense in disposal, and we have the chance to see how a more mature mind tackles the same problems.

In summing up our dossier, we almost necessarily go through two processes, first the sorting, second the labelling. In sorting we say, " What are the anatomical, physiological and pathological implications of the facts I have collected ? " In labelling, we go through alternative diagnoses and try to find the right one. Each sorting process helps the other, for when we have put the site of the trouble in any particular organ or structure we know the normal function of that organ and can enquire whether it has been disturbed and how ; when we know the site and the disturbance of function, we know that only certain pathological processes affect that organ and produce those results.

A girl of 16 has a lump in the neck. The lump is deep to the sterno-mastoid. It does not move on swallowing. It cannot be moved much up and down but it can be moved freely from side to side unless the sterno-mastoid is contracted, when it becomes relatively fixed. Therefore it is an enlarged lymphatic gland. It has produced no effect on function. It is not red, hot or tender, therefore it is not acutely inflamed. It fluctuates, but does not transilluminate, therefore it contains pus. Therefore it is a breaking down tuberculous gland.

A man of fifty complains of indigestion. The indigestion turns out to be pain shortly after taking a meal, relieved by vomiting. On looking at his abdomen we see disproportionate fullness in the epigastrium. On percussion we detect a large area of gastric resonance. On shaking him we can hear a splash. Therefore the trouble is in the stomach. The man dislikes food, he is losing weight, he becomes distended and he vomits ; therefore both the digestive and the propulsive mechanisms of the stomach have been interfered with. He is fifty, his indigestion has been slowly progressive over six months, his pain is irregular and not very severe, his loss of weight is greater than the indigestion would account for, he has a sallow look suggesting blood loss ; therefore the probable pathological lesion is a cancer.

In labelling we are relying entirely on our experience, but even so we can help ourselves by certain aids to memory, which are invaluable to us if we have compiled them ourselves, that is if they are based on our own experiences and reading. The first is a list of probable causes of certain symptoms in certain age groups—for instance the likely causes of an acute abdominal emergency at any particular age, or to be more specific the likely causes of intestinal obstruction or of peritonitis at certain ages. The second is the surgical sieve, a device I invented for the Guy's Fellowship class when I first organised that institution thirty years ago. The sieve can take many forms, but it should be as simple as possible. Being an aid to memory it is not scientific, but is rather designed to ensure that every possible explanation shall pass through one or other hole. Here is one :—

1. Congenital or familial.
2. Traumatic or mechanical.
3. Degenerative.
4. Local manifestation of a general disease.
5. Infective
   - (*a*) Virus.
   - (*b*) Pyogenic.
   - (*c*) Granulomatous.
   - (*d*) Protozoal.
   - (*e*) Due to visible parasites.
6. Neoplastic
   - (*a*) Innocent — Epithelial. Mesoblastic.
   - (*b*) Malignant — Epithelial. Mesoblastic.
   - (*c*) Metastatic — Epithelial. Mesoblastic.
7. Cysts.

You will see at once that nothing could be less scientific, but it is useful. The last group, cysts, is a jumble of all pathologies, but unless it is kept one is apt to forget things like thyroglossal or branchial cysts, which, though congenital, only appear later in life, like lymphatic cysts whose explanation is often obscure, or even hydatid cysts which are only remembered among the parasites if we have come across them. The traumatic and mechanical group is kept, lest we forget things like stones and acquired herniæ.

Test the sieve on some omnibus question like " Enumerate the causes of Jaundice " ; no examiner would ask such a silly question, but we may be forced to run through the list in considering a diagnostic puzzle.

1. *Congenital or familial.* We should think of congenital obliteration of the bile ducts, of Hanot's cirrhosis, and of familial acholuric jaundice. We should probably think of icterus neonatorum, though this is not its proper pigeon hole.

2. *Traumatic or mechanical* reminds one of stones in the gall bladder or common bile duct ; of injury of the duct by accidental tears or by operation, and of obstruction due to scar tissue following such injury ; of pressure on the duct from outside by the œdema round a posterior duodenal ulcer, by innocent tumours, or by a hernia in the foramen of Winslow.

3 and 4. *Degenerative and local manifestation of a general disease* overlap in cirrhosis, for who can say what is the cause ? The various hæmolytic jaundices, including those of the new-born and following transfusion, are probably best considered here. Jaundice due to poisons, phosphorous, arsenic and so on, certainly comes under this heading.

5. *Infective.* (*a*) *Virus.* This gives us catarrhal jaundice, infective hepatitis, serum jaundice.
   (*b*) *Pyogenic* reminds us of suppurative cholangitis and portal pyæmia.
   (*c*) *Granulomatous* reminds us of gummata of the liver and actinomycosis.
   (*d*) *Protozoal.* Here we have spirochætal jaundice, the jaundice of malaria and that of amœbiasis when a hepatic abscess approaches the main bile ducts.
   (*e*) *Visible parasites* remind us of those examination favourites, a liver fluke or a round worm obstructing the common bile ducts.

6. *Neoplastic.* (*a*) *Benign.* The innocent epithelial tumours to be remembered are a papilloma of the bile duct and a hepatoma. The only common innocent mesoblastic tumour is a cavernous angioma.
   (*b*) *Malignant.* Primary cancer of the liver. Cancers arising in or next to the bile ducts. Cancer of the gall bladder, cancer of the bile duct, cancer of the ampulla, cancer of the head of the pancreas, cancer of the pylorus.
   (*c*) *Metastatic.* Glands round the gastro-duodenal artery or in the hilum of the liver, and multiple metastases in the liver.

7. *Cysts.* Our friend the hydatid cyst, forgotten at 5(*e*).

We shall come across rarities, and we shall probably be wrong about them, but nothing could matter less, if our mistaken diagnosis is the one that any sensible man would have made. The man whose first diagnosis in an abdominal emergency is Bornholm disease is likely to remain a menace all his life.

I will not bore you with a list of rarities, though such a list is a well-known device to spin out a lecture. Barrett of St. Thomas's tells me that when asked to speak at a medical society, he always takes for his title, " My most interesting case ". It is only necessary to speak for fifteen minutes, for by that time every doctor in the audience is waiting to get up and relate his own most interesting case.

I would repeat, that what we must learn is to recognise the common things, and to treat them with common sense. You have all had Rutherford Morison's advice drummed into you, " If you see a bird on a roof, it may be a canary, but it is more likely to be a sparrow ". In surgery we are called on to act as well as to diagnose, and very often we must act before the diagnosis is clear, even if action is no more than to transfer the patient to a place where he can be under constant skilled observation. In doubt there is only one guide : " What is best for the patient "—in other words, " When there are several alternatives, act on that which is the most dangerous, even if it is not the most likely."

One final word, remember that you are treating a human being and not a disease. Your patient has a malady that you must identify and put right; but what worries him is the sudden dislocation of his work and his family life, his fears about the unknown or partly known, his need for reassurance and comfort in his doubt. The good practitioner is more than a clever man, he is a good doctor in the best sense of that grand old-fashioned word. As well as being an anatomist, a physiologist, a pathologist, a pharmacist, a physician, surgeon and accoucheur, he is a psychologist. I say a psychologist rather than a psychiatrist; a student of the normal mind rather than of the diseased mind. There are fine psychiatrists and we are proud to have such as colleagues, but unfortunately the specialty appeals too readily to men whose own lives are failures, who find in the position of self-appointed emperor of a group of subjects more unhappy than themselves a solace to their self esteem that they would not otherwise find. The homely psychology that understands and can help the troubles of the normal mind in face of the unknown and the frightening is something we can all acquire, and should acquire in our student days. If we work hard while we feel like it and shut up books when we are bored: if we play hard and devote ourselves to games where we get tired and may get hurt, and in which we are part of a team, rather than stars: if we take knocks with courage, and success without boasting: if we share our lives with others, telling them our troubles and advising them in theirs: if while at Guy's we live for the Hospital rather than for ourselves, we become psychologists without knowing it. We may not cure all our patients, but we can help them all. We may not become rich, but we can be sure of being good doctors if we try to follow the motto of the hospital that has trained so many of them—

"*Dare quam accipere*".

July **ACADEMIC**

		Exhibition. Surgical Department. "Some Developments of Joint Surgery."
26th	10.00.	Clinico-Pathological Meeting. Clinical Theatre.
28th	1.00.	Dr. Thomas B. Fitzpatrick, Assistant Professor of Dermatology and Syphilology, University of Michigan. Clinical Lecture. "The Clinical Aspects of Pigmentary Disorders."
31st	1.00.	Dr. Hardwick. Clinical Lecture. "Oedema."

REMINDER

The closing date for the Guy's Christmas Card competition is July 31st. All entries should be sent to the *Gazette* office. Full details of this competition, which carries a prize of £25, were printed in our issue of May 3rd.

Review

Aids to Physiology. By H. DRYERRE. 4th Edition. Ballière, Tindall & Cox. Price 7s. 6d.

There are, no doubt, many people who condemn the "potted" textbooks of medical knowledge. We are not amongst them. Nor, indeed, are there likely to be many students who, caught short of time, an examination a few days or weeks ahead, do not derive much help from such books. They are not a means of learning. They are an excellent means of revision. This book is the latest edition in a well-known series. We believe that students, especially those well past their 2nd M.B., who require to remind themselves of half forgotten physiology will find it useful. P.A.Z.

Correspondence

Increase in the Prices of Meals

SIR,—Since July, 1951, when it last became necessary to increase the prices of meals in the College and Staff Common Room, the cost of food has been steadily increasing and although it has been possible to avoid altering prices in the meantime, it now becomes necessary to increase some prices as from 28th July, 1952. Main dishes and the set lunch will be increased by 1*d.* ; rolls and fried potatoes by ½*d.* ; coffee and glasses of milk (except in the cafeteria) by 1*d.* ; tea by ½*d.* and pots of tea by 1*d.* (except in the cafeteria) ; some cheeses will be increased by 1*d.* It is proposed to discontinue the set dinner and provide alternative main dishes, one cheaper than the other, as it is felt that this arrangement will be preferred by those who dine in the College.

The increases in prices have been kept to the minimum necessary to meet increased costs and when it is possible, owing to seasonal changes in the cost of foods, the prices of some dishes will be reduced.

Suggestions from students for ways of improving the catering facilities are always welcomed and may be made through the student representatives, Messrs. T. B. Stephen and A. P. O. Stewart, or written in the suggestions book kept by the cashiers in the cafeteria and dining room.

Yours, etc.,
E. R. BOLAND,
Chairman,
Guy's Hospital College Catering Co., Ltd.

Fluorescent Lighting

SIR,—In reply to the letter of Major G. E. Aling, in your issue of 28th June, I would state that in my experience no harmful effect upon the eyes is to be expected from fluorescent illumination.

There are some who, like myself, dislike the appearance of a bare, unshaded fluorescent tube, especially if the type of tube is not happily chosen : there are others who profess to suffer discomfort from working in this type of light, but I feel sure this is a purely personal matter and that, as I say, there is no specific harmful effect upon the eyes. It is interesting that Major Aling mentions the Air Force, for I remember, during the war, a complaint coming from the female staff of an Air Force station that the fluorescent lighting was causing headaches. The substitution of silent typewriters for those previously in use eliminated the headaches, though the lighting system was left unchanged. I am very interested to hear of the decision taken by the authorities in the Air Force, and should be interested to have further details.

An important point in connection with fluorescent lighting is the pronounced flicker which can occur, compared with that produced by filament lighting. I take it that this is due to the fact that a filament has time to cool to only a limited extent between phases, whereas the fluorescent tube is virtually " out " between phases. This fact can give rise to a dangerous situation when this form of illumination is used where moving machinery is in use, for the stroboscopic effect is very marked, and if the rate of movement of, say, a circular saw corresponds with the frequency of the current, the moving part may appear to be standing still. Such effects are eliminated by using two or more tubes out of phase.

I think considerable further research is necessary before fluorescent lighting is beyond comment, but it is an interesting development, and certainly has its points.

Yours, etc.,
FRANK W. LAW.

Controlled Experiment ?

SIR,—In his most interesting article " Antibiotics in Dentistry " Mr. Woolf refers to work done by H. A. Zander of Boston. If his article gives a fair description, why should such investigations be dignified by calling them a " controlled experiment " ?

7, Harcourt House,
19A, Cavendish Square, W.1.

Yours, etc.,
R. DAVID PLOWMAN.

Hospital Information, etc.

GUY'S HOSPITAL
HOUSE APPOINTMENTS

Applications are invited for the following **House Appointments** at Guy's Hospital, duties to commence on **September 1st, 1952.**

Assistant House Surgeons	5
Out-Patient Officers	4
House Surgeons	2
House Physicians	4
Children's House Physicians	2
House Physician in the York Clinic	1
Ophthalmic House Surgeon	1
Neurological House Physician	1
Genito-Urinary House Surgeon	1

Applications are also invited for the following posts :—

Resident Obstetricians, one commencing 1.9.52, one commencing 1.11.52	2
House Surgeon to the Neuro-Surgical Unit commencing 5.11.52	1
Resident Junior Clinical Pathologists commencing 1.10.52	2
Resident Anæsthetist, commencing 20.9.52	1
R.M.O's. Nuffield House, one commencing 18.9.52, one commencing 8.10.52	2

The Medical Committee will also consider **applications** for appointments at **outer Hospitals,** as follows :—

Orpington Hospital.
Gynæcological House Surgeon 1

Pembury Hospital.
House Surgeon 1
House Physician 1
(Must have had previous experience).

Queen Mary's Hospital, Sidcup.
Details to be posted later on the Hospital Notice Boards.

Joyce Green Hospital, Dartford.
House Physicians 2

St. Olave's Hospital, Bermondsey.
House Surgeon 1
Commencing 2.9.52.

Applications, giving choice of post and choice of Hospital in order of preference, should be lodged in the Superintendent's Office not later than **Thursday, July 31st, 1952.** Candidates who apply for appointments at Guy's as Assistant House Surgeons, House Surgeons or House Physicians, should indicate their preference for Firms.

DENTAL OFFICER TO THE NURSING STAFF

Applications are invited for the post of **Dental Officer to the Nursing Staff** for attendance on six sessions per week. The appointment will commence on October 1st, 1952, and remuneration will be in accordance with the Terms and Conditions of Service of Hospital Medical and Dental Staff of the National Health Service, with the grading of General Dental Practitioner.

Applications should be lodged with the Superintendent on or before **August 19th, 1952.**

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL

Southwark Bridge Road, London, S.E. 1

Applications are invited for the post of **House Physician** vacant on the 1st September, 1952 (second or third post). The duty for the first two months will be in the Casualty Out-Patients' Department. The post is tenable for a period of six months and is recognised for the D.C.H. Salary at the rate of £400 or £450 a year, according to experience, with a deduction at the rate of £100 a year for residential emoluments.

Applications are invited for the post of **Non-Resident Part-time Casualty Officer,** for five morning sessions weekly. The appointment is for six months from the 1st September and for the purpose of salary is graded as Senior House Officer.

Applications, stating age, nationality, qualifications (with dates), and accompanied by copies of three recent testimonials, should reach the Hospital Secretary by the first post on **Thursday, 7th August, 1952.**

PAPERS BY GUY'S MEN

Allsopp, C. B. Radiation Chemistry. *Ann. Rep. Brit. Cancer Campgn,*. 1951, p. 251.

Atkins, H. J. B. Mastitis Clinic, Guy's Hospital. *Ann. Rep. Brit. Emp. Cancer Campgn.*, 1951, p. 252.

Atkins, H. J. B. Recent Advances in the Treatment of Carcinoma of the Breast. *Trans. med. Soc. Lond.*, 1952, **67,** 111.

Baker, G. P., and another. Benemid in the Treatment of Streptococcal Endocarditis. *Lancet*, 1952, ii, 15.

Burn, J. H. The Effects of Tobacco Smoking. *Trans. med. Soc. Lond.*, 1952, **67,** 214.

De Navasquez, S. J. Calcified Malignant Metastases. *Trans. med. Soc. Lond.*, 1952, **67,** 73.

Douthwaite, A. H. Occultism in the Days of Lettsom (Presidential Address). *Trans. med. Soc. Lond.*, 1952, **67,** 1.

Douthwaite, A. H. The Nature and Treatment of Fibrositis. *Trans. med. Soc. Lond.*, 1952, **67,** 175.

Goulding, R., King, M. B., Knox, R., and Robson, J. M. Relation Between In-vitro and In-vivo Resistance to Isoniazid. *Lancet*, 1952, ii, 69.

Kauntze, Ralph. Oedema of the Legs. *Trans. med. Soc. Lond.*, 1952, **67,** 194.

Lloyd, G. H. T., and another. The Diagnosis of Lesions of the Spinal Cord in Association with " Osteoarthritic " Disease of the Cervical Spine. *Brain*, 1952, **75,** 177.

MacKay, D. H. Skeletal Maturation in the Hand : A Study of Development in East African Children. *Trans. R. Soc. Trop. Med. Hyg.*, 1952, **46,** 135.

Northfield, D. W. C., and others. The Neurological Manifestations of Cervical Spondylosis. *Brain*, 1952, **75,** 187.

Rushton, M. A. Epithelial Downgrowth : Effect of Methyl Testosterone. *Brit. dent. J.*, 1952, **93,** 27.

Simpson, C. Keith. Unexpected Death in the Post-Operative Period. *Trans. med. Soc. Lond.*, 1952, **67,** 84.

Smith, R. E. Quarantine and Isolation. *Brit. med. J.*, 1952, ii, 34.

Stamm, T. T. The Most Promising Field for Preventative Medicine. *Mother Earth*, 1952, **6,** 31.

Stamm, T. T. Fractures of the Neck of the Femur. *Lancet*, 1952, ii, 59.

Symonds, Sir Charles. The Significance of Vertigo in Neurological Diagnosis. *J. Laryng.*, 1952, **66,** 295.

Symonds, Sir Charles. Migrainous Variants (The Annual Oration). *Trans. med. Soc. Lond.*, 1952, **67,** 237.

Toussaint, C. H. C., and another. The Domiciliary Management of Pulmonary Tuberculosis. *Trans. med. Soc. Lond.*, 1952, **67,** 36.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

COUNCIL

Mr. Hedley Atkins has been elected a member of the Council of the College.

Sir William Kelsey Fry has been co-opted to the Council for the year 1952–3 representing Dental Surgery.

EXAMINERS

Fellowship : Applied Physiology and Pathology
Prof. W. R. Spurrell

Diploma in Laryngology and Otology : Part II
W. A. Mill

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

First Examination
June, 1952

Anatomy and Physiology

C. E. James	H. H. F. Wellisch
J. J. Jeffreys	Barbara T. Woolf

Special Anatomy and Physiology

B. Armitage	C. E. James
P. H. N. Davis	F. C. van Coppenhagen
A. B. Greenwood	K. P. R. Wellham

UNIVERSITY OF LONDON

Academic Postgraduate Diploma in Bacteriology
A. J. Beale

Academic Postgraduate Diploma in Medical Radiology (Diagnosis)
J. Vance

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Final Examination
June, 1952

Part I. Surgery

F. Allan	J. Lopian
F. L. Brown	Ann E. Milne
D. J. Chant	W. F. Reading
H. Chatfield	D. R. Richardson
J. G. Davies	D. J. Timms
A. B. Grantley-Smith	F. H. Trist
S. L. Hewitt	R. W. Willcocks
G. L. Hunter	A. M. Williams
Diana M. E. Jennings	J. F. Wylie

Part II. Dental Surgery

R. R. Alsop	R. A. Harper
A. E. Bond	D. J. I. Jones
P. T. Burke	D. M. Kent
A. E. Castle	R. G. Kettle
K. E. Clokey	K. R. H. Lightburn
J. A. P. Darvell	F. R. B. Mathias
H. de V. Davis	F. Quail
P. D. Daw	C. R. G. Samuels
C. H. Dexter	S. Shindler
T. B. Forward	E. T. P. Thompson
A. L. Giulianotti	M. Woolf
C. G. E. Harber	

UNIVERSITY OF OXFORD

B.M., B.Ch.

Trinity Term, 1952

General Pathology and Bacteriology
J. B. L. Gee

Medicine, Surgery and Midwifery

*W. D. Hayley	*C. T. M. Wilson

* Have completed the examination.

CONJOINT BOARD

Diploma in Medical Radio-Diagnosis

L. J. Evered	R. W. McNab

Diploma in Medical Radiotherapy

J. McA. McArthur	K. A. Newton

Diploma in Anæsthetics

J. M. Hall	R. C. W. Thompson

Sport

CRICKET CLUB

Guy's 1st XI *v.* Stoics

At H.O.P. Result—Lost
Stoics 190–5 dec. Guy's 163

Guy's

D. M. Lipington, st., b. Sherwood	48
N. R. Cooke, l.b.w., b. Thompson	12
M. Williams, st., b. Levy	8
W. J. Howells, b. Sherwood	7
M. Willis, b. Sherwood	28
A. Cahill, b. Sherwood	4
F. Trist, l.b.w., b. Sherwood	26
E. R. Gibbons, c., b. Harrison	15
M. A. C. Lyon, c., b. Harrison	8
T. Smith, b. Sherwood	1
N. Labuschagne, not out	0
Extras	6
	163

Bowling : Labuschagne, 9-1-43-1 ; Lyon, 12-0-51-1 ; Trist, 4-0-19-1 ; Willis, 11-1-43-2; Smith, 2-0-7-0 ; Cooke, 3-0-22-0.

Guy's 1st XI *v.* Bognor

At H.O.P. Result—Drawn

Guy's 173. Bognor 125–8

Guy's

D. M. Allan, c. Sub, b. Cooper	33
W. J. Howells, b. Cooper	68
E. R. Gibbons, c. & b. Cooper	5
D. W. Atkinson, b. Cooper	0
M. Willis, c. Blithe, b. Warlow	2
A. Prince, c. Trayler, b. Cooper	50
F. H. Trist, b. Cooper	2
J. Riley, run out	1
D. Robertson, b. Trayler	5
N. Labuschagne, not out	6
G. Rosair, c. Fowler-Tutt, b. Trayler	0
Extras	1
	173

Bowling : Labuschagne, 6-2-5-2 ; Allan, 14-0-56-1 ; Rosair, 7-1-20-1 ; Atkinson, 3-2-5-0 ; Willis, 5-3-11-1 ; Howells, 2-0-13-0 ; Trist, 7-1-6-3.

Further cricket results are held over for our next issue.

UNITED HOSPITALS' SWIMMING CLUB GALA

The first United Hospitals' Swimming Gala since the war was held at the Seymour Halls on Wednesday, June 11th. It was encouraging to see many members of the staff and students attending this event, and the Guy's swimming team proved worthy of this support by winning the Inter-Hospitals' Cup.

M. Hewitt gave Guy's a good start by winning the 100-yds. back stroke and J. Kendall earned valuable points by coming third in both the 100 and 440-yds. free style.

It was not, however, until the last race that Guy's made sure of the Cup, when the 6 × 44-yds. free style relay was won by a large margin.

In the women's events Nurse S. J. Anderson came second in the 44-yds. free style and the Nurses' relay team were placed third.

The United Hospitals' polo team entertained Cambridge University and beat them by 8 goals to 7, providing an exciting finish to the gala.

EDS. { P.A.Z. E.E.D.T.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1671 *9th August* 1952 *One Shilling*

PASSIM

GOOD newspapers record facts. Bad ones print fancies. Some provide a valuable service by their interpretation of the news. Others, less reputable, make of the news topics for sensational " stories ".

The newspapers of this country have a proud tradition. They do much good. The little world in which each of us lives would be still smaller without them. They keep us informed on many subjects : from fashion to politics and economics to art. Without them we should understand still less of atomic power or jet propulsion, and without them the public would know little of the developments of medical science. But whereas " atoms " and " jets " have a selective audience there is no one uninterested in medicine. A new explosion or a new speed record is of great general interest but a new drug or new operation may bring personal hope to the reader, perhaps the only hope, of losing his pain, of using his limbs again, or of recovery from mortal disease. The writer in the medical columns has an eager public and, therefore, a heavy responsibility. Write what he may ; write it in cold, lucid terms or in the sickening slush of a " human interest " story, it will still be read.

This keen public interest can, however, be a great embarrassment to research workers. The desire to work quietly, not to raise false hopes by early and ill-founded claims makes their reticence natural and deserving of respect. The Press on the other hand want to keep the public informed, and between these conflicting desires there lies a gap as yet unbridged. Some sections of the Press are viewed by doctors with distrust, and doctors are regarded by the Press as rather " cagey ". Some articles appearing on the treatment of cancer, for example, do little to foster mutual trust.

It is a good thing that the public shall be kept informed of medical progress and if doctors are occasionally embarrassed by their patients knowing more than they do themselves of some new treatment reported in the Press it does little harm. The lay press on the whole have an important function in this field to perform, but to do it well the journalist must be as careful as the research worker himself to be accurate, factual, and not to raise false hopes by flights of fancy.

We regret to record the death on 24th July of Viscount Goschen of Hawkhurst. Viscount Goschen was for some years Chairman of the Court of Governors of Guy's Hospital and was its Treasurer for a period of fourteen years, spanning the first world war. His long and active life included Membership of Parliament and the Viceroyalty of India. Guy's were indeed fortunate to have the services of so gifted a man and one who took so keen and active an interest in the Hospital. We offer our sincerest sympathy to his relatives.

Notices about the Biennial Dinner have now been sent to over four thousand Guy's men. Owing, however, to the fact that the addresses of some of them may have changed we have been asked by Mr. O. Gayer Morgan who is Hon. Secretary, to remind all Guy's men that the Dinner will take place on 3rd October, and that tickets costing 25*s.* each may be obtained from him at the Medical School.

The Wills Librarian would be most grateful if borrowers would return all books and periodicals to the Wills Library for the Annual Stocktaking.

Obituary

THE RT. HON. VISCOUNT GOSCHEN, P.C., G.C.S.I., G.C.I.E.

TO the present generation of Guy's men and women, the name of Lord Goschen, whose death is recorded on the 24th July, is not very familiar but, during the period 1910 to 1924, he was Treasurer of the Hospital and Chairman of the Court of Governors. During this time he was intimately associated with all the activities of the Hospital and School. He took a great interest in the daily work of the Hospital, and his familiar figure was constantly seen about the Wards and Departments.

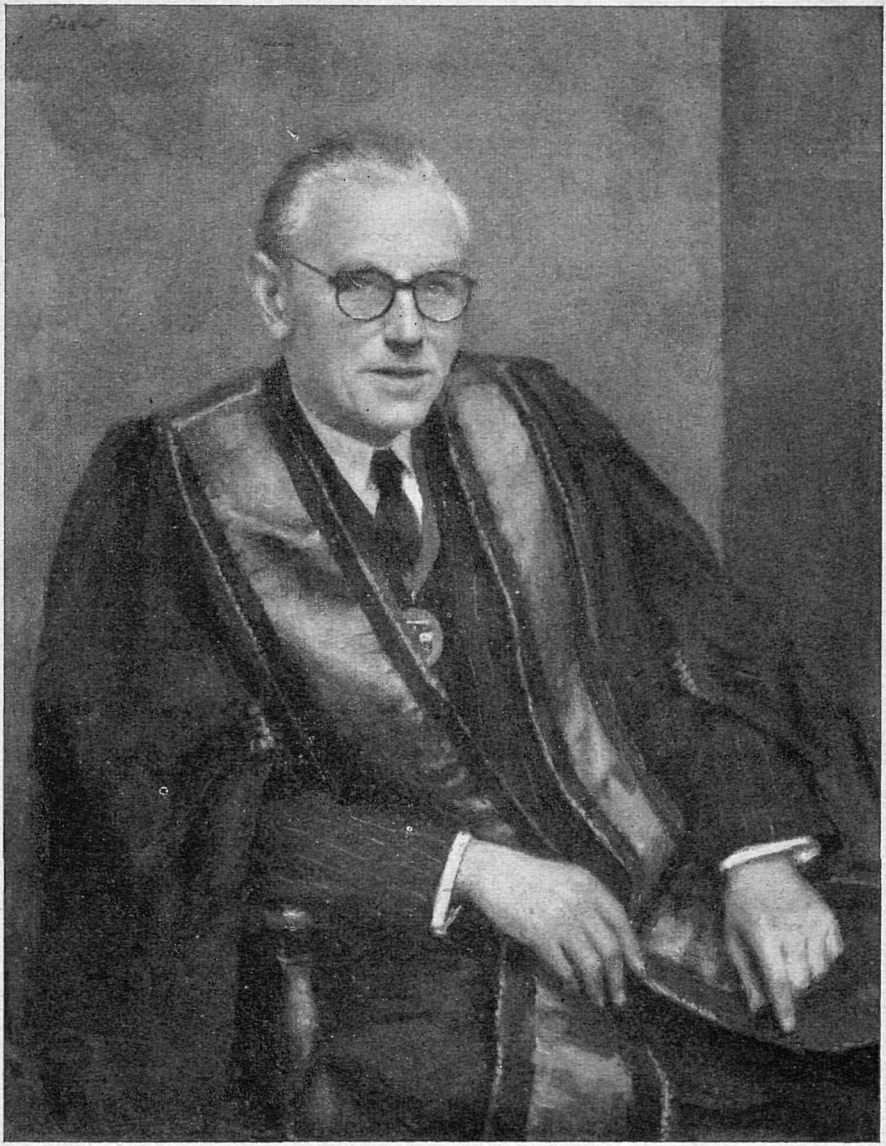
In 1936, Lord Goschen was appointed President of the Hospital, an office which he held until 1944. His last public appearance in the Hospital was at the unveiling of Lord Nuffield's statue in June, 1949, when he showed himself to be still a very active personality despite his advancing years. His health began to fail during the last year or two, and he spent a good deal of time in Nuffield House where he was always a very welcome patient.

Guy's owes a great deal to Lord Goschen's guiding hand through a very difficult period. We mourn his loss and tender our sincere sympathy to his family.

BON VOYAGE

[*Mr. Brock has just left on a visit to the Argentine*]

Spare a thought for one who flies
Far away to other skies
(He who shortly will be seen
Landing in the Argentine).
Will he go straight to the hearts
Of the people in those parts ?
Has there been a man so keen
Ever in the Argentine ?
What a long way off he'll be,
Such strange sights he's sure to see ;
Not, we think, even the Dean
Has been to the Argentine.
Soon he'll be upon the prairies,
And will dine in Buenos Aires ;
Nothing common, nothing mean
Waits him in the Argentine—
Pampas grass, exotic birds,
Rivers wide and wondrous herds ;
Think what meat, both fat and lean,
He'll find in the Argentine.
Will he give to us a thought
(Staying here and going short) ?
Butter there—no margarine
Figures in the Argentine.
Will he, after all the fuss,
Be quite pleased to fly to us ?
We shall welcome him who's been
To and from the Argentine.



SIR WILLIAM KELSEY FRY

Presentation

Guy's Dental graduates from all over the world have contributed towards the painting of a portrait of Sir William Kelsey Fry and on Tuesday, 22nd July, 1952, the Physiology Theatre was the setting for a very pleasant ceremony.

Before an audience of students, past and present, Mr. G. B. Pritchard recalled how it had been decided to have the portrait painted in honour of the knighthood which had been bestowed on Sir William. Mr. H. T. Campkin, on behalf of all those concerned, then presented the portrait to Sir William who expressed his sincere thanks for the gift.

It was a happy occasion and Lady Kelsey Fry's presence gave everyone great pleasure.

It was a matter of regret that the artist, Mr. A. Devas, was unable to attend for many of those present would have liked to congratulate him on his excellent work.

John Keats as a Student

By F. N. DOUBLEDAY, F.D.S., M.R.C.S.

ON June 7th the house in Hampstead, once occupied by John Keats, was reopened under the auspices of the Mayor of Hampstead ; the ceremony was performed by the Marchioness of Crewe and an address was delivered by the Hon. Harold Nicholson ; such is the honour which is justly paid to a Guy's man, one hundred and twenty-one years after his death.

Keats was born in 1795 and was baptised in St. Botolph's Church, Bishopsgate Street, by the Rev. Dr. Conybeare, an ancestor of our Sir John. Keats' father kept a posting establishment, the eighteenth century equivalent of a garage, in Finsbury Pavement (now Moorgate Street). In the family were also two surviving brothers and a sister. When he was nine years of age his father died suddenly ; three years later his mother died also and the children were left to the care of his maternal grandmother and after her death to that of an unsympathetic guardian. From 1803–9 Keats was at boarding school in Enfield. Charles Cowden Clarke, son of the headmaster and an assistant teacher in the school, took a great interest in him, directing his pupil's attention to the work of Edmund Spenser, Milton, Chaucer, and other great poets. In 1810 Keats gained the school medal for his proficiency ; the inscription on it states that the course of learning may be hard and difficult, none the less the end will be renowned ; this is a good motto for a future medical student. It is not clear what led Keats to take up medicine ; the fatal accident to his father and the untimely death of his mother may have caused him to see the importance of the profession. According to the custom of the time he was apprenticed to a local doctor at Edmonton until he came to Guy's in October, 1815 to complete his hospital courses. He attended the lectures given jointly by the staffs of St. Thomas's and Guy's. His note book is in the Hampstead Museum ; it is of a pocket size and is bound in limp leather ; it contains notes of lectures on the blood, on arteries, on diseases of veins, the nervous system, etc. Mr. G. R. Winston has published an account of the note book of one of his contemporaries, Joseph Waddington, which is in the Wills Library. Keats made fewer and less copious notes than did Waddington ; he also had a habit of drawing flowers and other objects in the margin of his notebook, which indicates that his interest flagged at times.

By kind permission of the Trustees of the National Portrait Gallery.

When Keats first came to Guy's he lodged at 8, Dean Street, where the arches of London Bridge Station have since been built. Later he moved into a house in St. Thomas's Street, where he lived with three other students

whom he joined on the recommendation of Sir Astley Cooper. In this house was a window seat, which was always known as Keats' place. During the ten years that the present writer lived in 4, St. Thomas's Street, there was such a seat in the first floor window and one liked to think that it may have been where he sat. It is a subject which was discussed with Sir William Hale White but the numbering of the street has been altered several times and the identity is uncertain. His friends record that poetry occupied much of his time. In July, 1816, he was examined for the L.S.A. and passed. In this year the University of London was not founded, the Royal College of Surgeons had examinations for the Membership. The Society of Apothecaries had just instituted a qualifying examination and it was this for which Keats sat. Some of his early poetry is a recollection of his life as a student, or of the time immediately after he qualified and was living with his brothers in the City of London. The first published poem appeared in the *Examiner* of May 5th, 1816, and describes his life in the Borough.

" O Solitude ! if I must with thee dwell,
Let it not be among the jumbled heap
Of murky buildings ; . . . "

Many a Guy's man walking over London Bridge in the evening has seen the golden Cross above St. Paul's Cathedral lit up by the evening sun. To Keats it suggested a simile :—

" . . . thence too I've seen
The end and aim of Poesy. 'Tis clear
As anything most true ; as that the year
Is made of the four seasons—manifest
As a large cross, some old cathedral's crest,
Lifted to the white clouds. . . . "

Keats was a great walker, going over to Islington to visit his friend Cowden Clarke, who had moved there, and to Hampstead to the literary circle around Leigh Hunt. He would walk the eight miles to Hampstead and come back again late at night. One such walk is described as follows :—

" Keen, fitful gusts are whisp'ring here and there
Among the bushes half leafless, and dry ;
The stars look very cold about the sky,
And I have many miles on foot to fare."

These are early examples of the poetry of Keats. After obtaining his medical qualification he determined to give himself entirely to poetry. In a letter to a friend he writes :—" My last operation was the opening of a man's temporal artery. I did it with the utmost nicety, but reflecting on what passed through my mind at this time, my dexterity seemed to be a miracle, and I never took up the lancet again." In another letter he says :—" Every department of knowledge we see excellent and calculated towards a great whole. I am so convinced of this that I am glad at not having given away my medical books, which I shall again look over, to keep alive the little that I know hitherwards." Or again, writing to his friend Reynolds, he says :—" I have heard how slowly you are recovering. It is a tedious thing—but all medical men will tell you how far a very gradual amendment is preferable ; you will be strong after this, never fear." A little earlier Keats had written to his brother George :—" Reynolds has been very ill for some time, confined to the house, and had leeches applied to the chest ; when I saw him on Wednesday he was much the same, and he is in the worst place in the world for amendment, among the strife of women's tongues, in a hot and parch'd room."

Here is a sonnet in the Shakespearean form in which Keats tells how carefully he weighed his lines, it gives a good idea of the poet at his work.

" If by dull rhymes our English must be chain'd,
And, like Andromeda, the Sonnet sweet
Fetter'd, in spite of pained loveliness ;
Let us find out, if we must be constrain'd
Sandals more interwoven and complete
To fit the naked foot of Poesy ;
Let us inspect the Lyre, and weigh the stress
Of every cord, and see what may be gain'd
By ear industrious, and attention meet ;
Misers of sound and syllable, no less
Than Midas of his coinage, let us be
Jealous of dead leaves in the bay wreath crown ;
So, if we may not let the Muse be free,
She will be bound with garlands of her own."

This is contained in the Journal letter to his brother of April 30th, 1818. In it he makes this comment on his own work :—" I have been endeavouring to discover a better sonnet stanza than we have. The legitimate does not suit the language over well from the pouncing rhymes—the other kind appears too elegaic—and the couplet at the end of it seldom has a pleasing effect. I do not pretend to have succeeded—it will explain itself." This study led him to develop a form of the Ode in which his poetry reached its greatest perfection. as may be read in the Odes, " To Autumn ", " To the Nightingale ", " To a Grecian Vase ".

Endymion was a long but not, taken as a whole, a successful poem. The Eve of St. Agnes is a long poem, continuous in its theme and full of vivid images. Read slowly the opening lines describing the coldness of an unheated chapel in winter ; you will reach for your overcoat.

The poems of Keat's are better known than his letters but the letters repay the most careful study. For a student this is a sound observation. " I read and write about eight hours a day." There is an old saying, " ' well begun is half done ' "—'tis a bad one. I would use instead, " ' Not begun till half done '." The poet was keenly alive to all that went on around him, he said that if he saw a sparrow pecking in the gravel that he took part in its life. He wrote, " I go among the fields and catch a glimpse of a stoat or a field mouse peeping out of the withered grass—the creature hath a purpose, and its eyes are bright with it. I go among the buildings of a city and I see a man hurrying along—to what ? The creature hath a purpose and his eyes are bright with it." He also had a keen sense of the need for reflection and held a philosophy of life which he called " negative capability " :—" I had not a dispute, but a disquisition with Dilke upon various subjects ; several things dovetailed in my mind and at once struck me what a quality went to form a man of achievement, especially in literature, and which Shakespeare possessed so enormously—I mean Negative Capability—that is, when a man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason."

Keats has been accused of being a sensualist. What is the definition of the term ? A person who admires beautiful things ; colours, flowers, form, statuary, is a sensualist ; he may also be a person who allows his passions to exceed his control. The opening lines of Endymion may be selected as an example of the first :—

" A thing of beauty is a joy for ever :
Its loveliness increases ; it will never
Pass into nothingness ; but still will keep
A bower quiet for us, and a sleep
Full of sweet dreams, and health, and quiet breathing."

On the second count we must consider the dominant genes of Keats. His father and mother had passionate natures which he inherited. The Keats were a devoted family and the fact that early in life John became an orphan ;

that one brother died slowly under his eyes ; that another brother emigrated to the United States ; that he was only allowed to visit his sister at long intervals ; all these aggravated the inborn tendency of his life. But it has been grossly exaggerated by his critics ; compare the life of Keats with the life of Shelley. Again, what other poet has had so many odd scraps of casual scribbling preserved and printed in the corpus of his work ? One day during a lecture, Keats wrote on the cover of the note book of a fellow student these lines :—

" Give me women, wine and snuff,
Until I cry out " hold, enough ! "
You may do so sans objection
Till the day of resurrection."

This has been seriously quoted as an example of his depravity. What student could be fairly judged by idle lines scribbled in the course of an uninteresting lecture ? Could Wordsworth, could Tennyson, be judged by the lighter lines of their idle moments ? Not they. His letters are the most valuable criterion of his conduct, his attitude may be summarised by the sonnet which he wrote when he had faced and conquered temptations which come to many young people :—

" How fever'd is that man who cannot look
Upon his mortal days with temperate blood ;
Who vexes all the leaves of his life's book
And robs his fair name of its maidenhood.
It is as if the rose should pluck herself
Or the ripe plum finger its misty bloom,
As if a clear Lake meddling with itself
Should cloud its pureness with a muddied gloom.
But the rose leaves herself upon the briar
For winds to kiss and grateful bees to feed ;
And the ripe plum still wears its dim attire ;
The undisturbed lake has crystal space.
Why then should man, teasing the world for grace,
Spoil his salvation by a fierce miscreed ? "

What was Keats like in personal appearance ? He was under five feet in height. His hair was of an auburn colour, some of it may be seen in Keats' House or in the Fitzwilliam Museum in Cambridge. He was vivacious and alert. In my opinion the portrait sketch by Severn, published in the Oxford edition of the Poems gives an entirely false impression of his face ; it was produced under the influence of Haydon's imaginative portrait of him in the " Entry into Jerusalem ". Those of you who have seen the lantern slides in my lecture on Keats or who examine the plaster cast of his face, taken during his life, in the National Gallery, or the pencil sketch by Charles Brown, which is reproduced here, will see for yourselves what a clean strong profile he really had. Having nursed his brother while he was ill with tuberculosis and then recklessly over-exposed himself to hard climatic conditions, Keats contracted the disease and died of it in Rome in 1821, when he was only twenty-five years old. Yet, in 1952, the reputation of his poems and letters stands high in all the countries of the world. How truly his lines represent his own life :—

" Four seasons fill the measure of the year ;
There are four seasons in the mind of man :
He has his lusty Spring, when fancy clear
Takes in all beauty with an easy span :
He has his Summer when luxuriously
Spring's honied cud of youthful thought he loves
To ruminate, and by such dreaming nigh
His nearest unto heaven : quiet coves
His soul has in its Autumn, when his wings
He furleth close ; contented so to look
On mists in idleness—to let fair things
Pass by unheeded as a threshold brook.
He has his Winter too of pale misfeature,
Or else he would forego his mortal nature."

Correspondence

Cæsarian Section

SIR,—May I disagree with one word in your recent notice of Mr. McNair. It is the word "dangerous" in reference to Cæsarian section when he came up to us from Cambridge. Given the courage to make the plunge—and the old surgeons were not deficient in this—the only danger from a Cæsarian section was peritonitis, and that had ceased to happen at Guy's in the clean abdomen, where the gut was not opened, many years before 1909. Death from this cause did not happen then any more than it does now. As we learn from Dr. Cameron's *Life of Lister*, Howse introduced the antiseptic technique in 1870, and he had such an influence on his colleagues that every one who came on to the staff after him took to it. During the nineties the aseptic technique was worked out at Guy's and Schimmelbusch's book on this was translated by Mr. A. T. Rake, a surgical registrar.

The last stage in the aseptic technique was the use of sterile gloves for all assistants as well as for the operator. This was completed for the whole hospital in January, 1909. I am sure of this because when I went away at the end of June, 1907, one firm only had taken to it. When I came back in October, 1908, all the surgical firms had done so except one, and that took to it in the next three months. By January, 1909, therefore, the whole hospital was working on an aseptic technique which has not materially altered since. Some firms continued on a wet technique for a while, but it is quite wrong to think you cannot do aseptic surgery by boiling just as efficiently as by a dry sterilisation.

I think in the old days danger must have resulted from Cæsarian section because when it was decided to perform this it was held necessary to wait for labour to commence before doing it. It was thought that the uterus would not contract down when emptied unless it was in labour, and that there was great danger of post-partum hæmorrhage if it had not begun.

Dr. Peter Horrocks was teaching against this before I got into the wards in 1904. "Exciting" a Cæsarian section certainly was, but then that was Peter, not the operation. He was a Lancastrian of generous proportions; a black shaggy beard, and a booming voice. He never lost the speech of the county, but it is impossible to record it because if you get the pronunciation into letters you cannot get the intonation. "Yer caan't tak th' uterus ba surprase (surprise). It's alave. It's always on the *qui vive*" was his teaching. When he had decided on Cæsarian being done he waited for the baby to have as little disadvantage from prematurity as possible and arranged to have the mother in and do it at an appropriate time before the labour was due; as he used to say, if she went into labour prematurely you had her there with everything ready instead of having all the flurry of doing it in the middle of the night. And so a notice was put up in the colonnade to the effect that next day Dr. Horrocks would perform Cæsarian section at 2.0 p.m. and that any student who wished to see it should meet him outside Queen Ward at that hour.

The obstetric department was kept busy the whole of the morning. The whole of Queen was tipped over into Victoria. The left side of Queen as you go in was fitted up as an operating theatre. The right side was made into a preparation room, anæsthetic room, and place to put the baby when it had arrived. At 1.30 p.m. all the pupil midwives were brought over from St. Thomas' Street with any trained midwife, who happened not to be on duty, and were ranged at the far end of the ward beyond what would become the feet end of the patient. By 2.0 p.m. the space between Queen and Bright (now the children's ward) was packed with students.

Peter was always punctual—with two exceptions, a physician and an assistant surgeon, the whole staff were in those days—and he talked to us while the patient was being anæsthetised, a longer task than it is today. It

was from two, or perhaps three such talks, that I learnt what I have recounted above as his teaching, specially that of the uterus being " alive ". He was advocating a definite extension of the indications for Cæsarian which he claimed was quite legitimate if it was done at a selected hour on a chosen day and not with all the scurry of an urgent operation when the patient had gone into labour. That I think was the great thing in his teaching. He added to this that every Guy's man must be prepared to do it himself in whatever part of the world he was, including the English countryside. We have to remember that telephones were only just beginning, and specialists could only be summoned by telegraph. There were no motors, and they had to be met at the station and driven to the doctor's house on the way to the patient's, and so in many cases no specialist was available. Horrocks' teaching of the chosen hour had another important bearing. There was no electric light, and in many villages, no gas. If an operation could not wait for daylight or be done before the light had faded, it had to be done by the light of candles and paraffin lamps.

Having given his talk Peter went into the ward to scrub up, a great ceremony on his part ; and then we all trooped in and the operation was performed " cito, tuto, ac jucunde ". No ! The indications for Cæsarian may have gone today far beyond what Peter had been teaching ; but it was as safe an operation when Mac came up from Cambridge as when he went on to St. Thomas' and only more exciting in Peter's preparations for putting across his teaching. In the execution of it there was no more excitement than any other laparotomy, then or now.

Yours, etc.,

T. B. LAYTON.

John Keats

SIR,—We have no annual lecture at Guy's to commemorate John Keats. May I therefore appeal to the readers of the paper on his life and work to subscribe to the Keats-Shelley Association, which helps to keep alive his memory in this country and maintains the house in Rome, in which he died. The Marchioness of Crewe is Chairman of the Association and Miss Elsa Forman of 63, Rowan Road, W.7, is the Hon. Secretary.

Yours, etc.,

F. N. DOUBLEDAY.

THE CARDIO-THORACIC UNIT

The photograph printed overleaf was taken on the occasion of the hundredth Pulmonary Valvotomy. We believe the following details may be of interest.

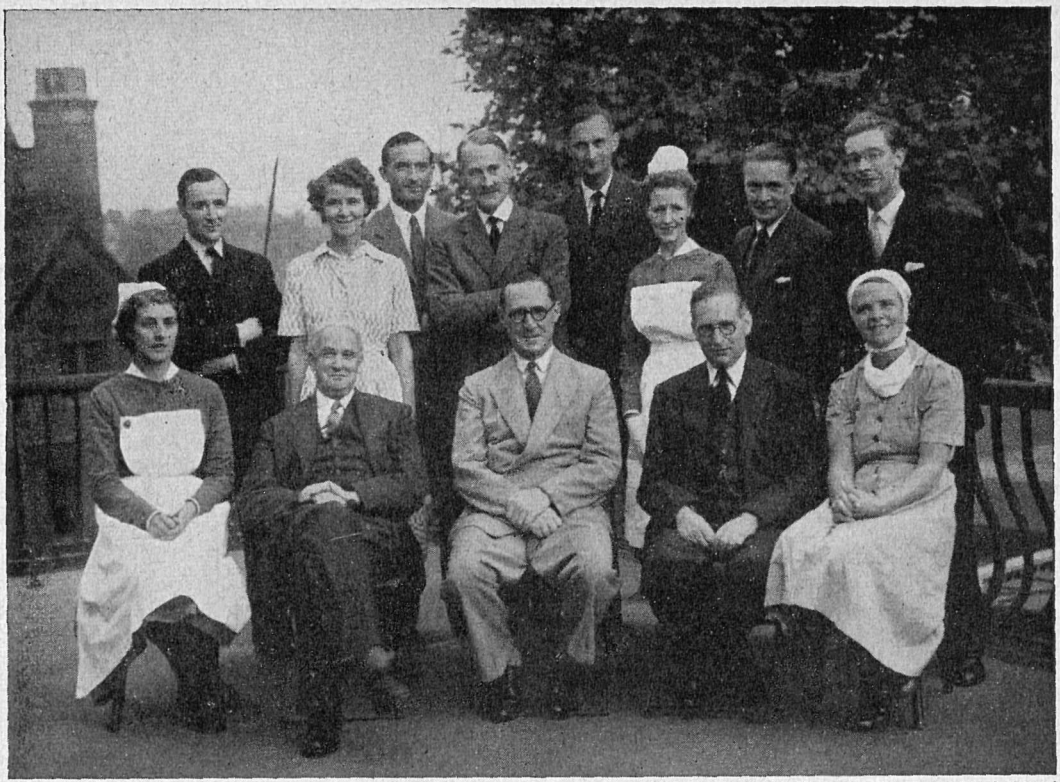
First Pulmonary Valvotomy performed on 16th February, 1948.

100th Pulmonary Valvotomy performed on 21st July, 1952.

Mortality	14
In the first 20	7
In the last 80	7

Some of these patients were operated on by Mr. Brock at the Brompton Hospital and a few at the Johns Hopkins Hospital, Baltimore.

GUY'S HOSPITAL CARDIO-THORACIC UNIT



Photographic Dept., Guy's Hospital

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Dr. C. G. Baker
Assistant Physician, Cardiac Dept.

Sister Phillips
Theatre Sister

Dr. H. E. Holling
M.R.C. Unit

Mr. Ian Hill
Surgeon, Former First Assistant

Sister Vaughan
Theatre Sister

Dr. Maurice Campbell
Physician-in-Charge Cardiac Dept.

Mr. R. C. Brock
Surgeon

Dr. E. H. Rink
Anæsthetist

Sister Smith
Theatre Superintendent

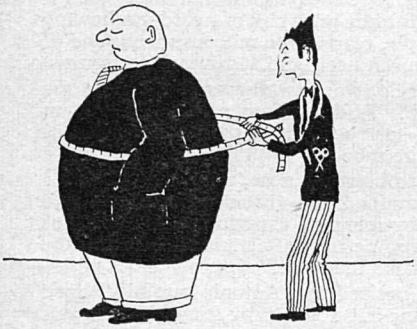
The Physiology of Fun Fairs

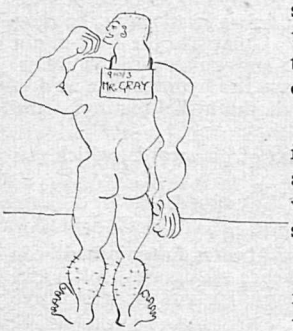
By R. PALMER

Awarded the Guy's Hospital Physiological Society's *Pembrey Prize* for the session 1951–52.

IT isn't every day that one is invited to a Fun-Fair by a Professor—especially when he *is* a Professor of Physiology. But it happened to me a few weeks ago. I'd been working pretty hard for several days and was planning to have a break when somebody knocked on my door. It was a very old friend of mine from St. Patrick's Hospital . . . Professor William Rubin—Billy Rubin to his friends.

When he suggested that we should spend the afternoon at a fun-fair I agreed at once. I had been ploughing through Big *Best and Taylor*, Little *Best and Taylor* and Gray's *Anatomy* for hours—but I hadn't made the slightest progress. My imagination was playing tricks. All I kept seeing before me was Big Best and Taylor, Little Best and Taylor . . . and Gray's Anatomy.



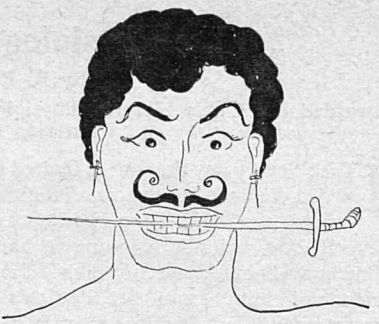


I was rather surprised that the Professor should suggest a Fun-Fair ; but after all, I thought, even *he* must forget about work sometimes. Generally he was far too busy hammering out basic principles to think of anything else.

When we arrived at the Fair, everything was in full swing : fat ladies, thin men, freaks of all nations and the rest of it. The first booth which caught our attention was a circular tent striped like a barber's pole.

The Professor, being a gentleman, allowed me to go first through the tent opening. I parted with half-a-crown. We were just in time. At one end of the tent, curtains parted to reveal a rickety stage—and the next moment the Great Antonio himself appeared.

He smiled down from a height of six feet four inches ; the audience applauded—and he selected a small sword (about eight inches in length) from a table in the corner. Then he bent his head back at an angle of 80°, to get a straight line from throat to stomach—and swallowed the sword at one gulp. The trick was repeated several times, and each time the swords grew bigger.



I suggested to the Professor that the trick was obviously done with blades that telescoped into the hilts. But the Professor looked indignant.

" You're quite wrong there," he said. " These fun-fair people often learn by experience a surprising amount of physiology and anatomy. The public always look for some catch—but generally there is none. Sword-swallowing is a very dangerous profession which needs great courage and perseverance. I have no doubt that Antonio is genuinely swallowing the swords ! "

I reminded the Professor of my recent unpleasant experience with stomach tubes.

" Exactly," he replied. " You'd never make a sword-swallower. As you remember, the main difficulty encountered in swallowing a stomach tube is at a point where the œsophagus is relatively constricted at the level of the cricoid cartilage. Delay in passing this point causes very unpleasant sensations—but someone who frequently practises *can* accustom himself to pass it so rapidly that retching does not occur. But the great risk of sword-swallowing comes *after* that initial phase : for example, tearing the mucous membrane of the œsophagus, or even piercing the stomach itself and setting up peritonitis.

" It's comparatively easy for a would-be sword-swallower to ascertain the distance from his teeth to his stomach. And remember this, Palmer, in relation to using graded stomach tubes—take account of the patient's size as well as the manufacturer's markings on the tube ! "

The Professor paused for a moment to blow his nose, and then went on : " When the sword-swallower has ascertained the distance from teeth to stomach, he will—as with any other physiological experiment—practise his act under set conditions, i.e., always the same time after a meal—so that the sagging or otherwise of the stomach remains the same."

As the Professor finished speaking, I noticed that Antonio carefully wiped his sword both before and after swallowing it. I asked my friend if there was any reason for this, and this is what he said :

" You will notice first of all that none of the swords has any engraving of any kind on the blade—and that moreover, all the swords are apparently nickel-plated. This is so that the blades will be as smooth as possible—for obvious reasons. When Antonio wipes the blade *before* swallowing, he does it to remove dust particles and possibly to oil it. Otherwise the dust might stimulate the sensory endings of the vagus nerve and cause a cough reflex. Antonio wipes the sword *after* swallowing to remove the hydrochloric acid of the stomach fluids—which would otherwise corrode the nickel-plating. And nickel-plating is going up in price ! "

By this time Antonio was swallowing the largest of his swords, which was fully two feet in length.

" The taller the man, the longer the swallow ", I observed.

" Possibly ", came the Professor's enigmatic reply.

Suddenly the booth-owner announced that world-beater Antonio had been challenged to a sword-swallowing duel. The audience sat up and took notice as a moon-faced Chinaman appeared on the stage. He was at least three inches smaller than the massive Antonio.

" If he swallows a longer sword than Antonio," I murmured, " I'll swallow your bowler ! "

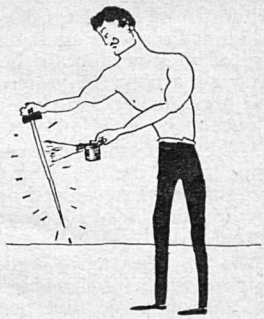
The Chinaman brought out a sword and measured it against Antonio's championship weapon. It was easily two inches longer. Then the Chinaman opened his mouth and—slowly but surely—the sword disappeared right up to the hilt.

I couldn't believe my eyes, but the Professor wasted no time in explaining.

" It rests on a basic physiological fact," he told me. " You should know by now that the position and shape of the stomach are not constant. The Chinaman's stomach may naturally be more pendulous than Antonio's. Or he may have a J-shaped stomach, and Antonio a steer-horn type. However, I think it more likely that our Chinese friend has just eaten a heavy meal—such as barium—which has caused his stomach to elongate downwards . . . possibly for the necessary three inches ! "

At this moment, however, Antonio re-appeared to save the day. With a blow-lamp he brought his sword to red-heat—then plunged it suddenly down his gullet. There was no doubt as to the winner of the contest. We all cheered.

As the Professor and I left the tent, I challenged him to produce a physiological explanation for this.



" Physiology be damned," he remarked. " The man simply swallowed an asbestos scabbard before he came on for the second time ! "

I was feeling a little hurt when a raucous voice interrupted my train of thought.

" Roll up, roll up ! " it barked. " Come and see the Lancashire giant. Only 36 years of age, and he's still growing ! "

I felt a dig in the ribs and saw the Professor smiling to himself.

" That's a curious phenomenon," he murmured. " I always thought that the epiphyses of the long bones fused at about the twentieth year. Anyway, let's take a closer look."

He pushed me forward and I was forced to dig down into my pockets for a second half-crown. When we got inside, the giant came out on to the stage accompanied by a roll of drums. He was well over eight feet tall, with enormous hands and feet—and he towered over the audience like Gulliver among the Lilliputians. I decided that now was the time for me to show off a little knowledge—but I wasn't quick enough. The Professor drew a deep breath and plunged into speech.

" This," he said, " is a simple case of over-secretion of the anterior lobe of the pituitary during the period of growth. In other words—hyperpituitarism before the epiphyses join up with the long bones. In a case of this kind, indeed, the long bones are aptly named ' long '."

I tried to laugh at the Professor's attempt at humour and he looked pleased. His next remark was to the effect that he was glad to see that Mr. Winter-bottom's pituitary had ceased to misbehave itself. I was about to air my knowledge for the second time—but again the Professor forestalled me.

" Don't mumble, Palmer," he said. " The reason for my saying that is obvious. After adolescence is past, hyperpituitarism cannot cause any increase in stature—but it does manifest itself in other ways . . . in the condition known as acromegaly. In such cases there is osseous deformation in the head and in the extremities, namely the nose, lower jaw, forehead, hands and feet. Take a look at Mr. Winterbottom's hands. They are large—but by no means

spade-like, as they would be if he suffered from acromegaly. His tongue appears to be of normal size, and his nose is quite small. Then again, in someone who suffers from acromegaly, the mandible becomes abnormally prominent—but our friend's lower jaw recedes rather than protrudes. And the same goes for his forehead.

To sum up, at some time during Mr. Winterbottom's history, growth has ceased because of a transformation from the previous state of glandular over-activity. Naturally his skeletal manifestations remain as subsequent clinical fixtures. Once a giant, always a giant—but *not necessarily always a sufferer from hyperpituitarism* ! "

My chance to speak was gone for ever—and I had listened so carefully to Dr. Bishop. I glared meaningly at the Professor, but he merely raised his eyebrows.

" Come to think of it," he said, " I'm surprised you didn't know about giantism, Palmer. Surely you've had a lecture on the subject by now ? "

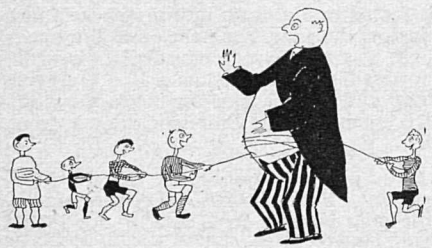
I ground my teeth.

A few minutes later we paused for refreshment at a nearby stall—six-pennorth of chips each. The stall owner had certainly studied the psychology of salesmanship, for he served the Professor's chips in yesterday's *Times* and mine in last Sunday's *News of the World.*

The Professor swallowed his last chip, stuffed the *Times* into his pocket and suggested we moved on. I voted for the Dodgem cars ; he proposed the Rotor.

As we approached the Rotor . . . he lapsed again into his long dissertation and informed me that he wanted to carry out some experiments on the labyrinthine theory of motion sickness. I began to regret the chips.

" Motion sickness," he explained, " strangely enough, is simply and solely sickness caused by motion. Sea-sickness, air-sickness and fun-fair sickness are fundamentally the same.



Many interesting theories have been put forward as to the cause of motion sickness ; for example, that of the human cocktail shaker — a vertical shaking movement causing the blood to ebb and flow in the brain, thus bringing about alternative engorgement and anæmia.

Another is the tummy tug-of-war : that the motion exerts a pull-and-push stimulus on the viscera, eliciting a vomiting reflex.

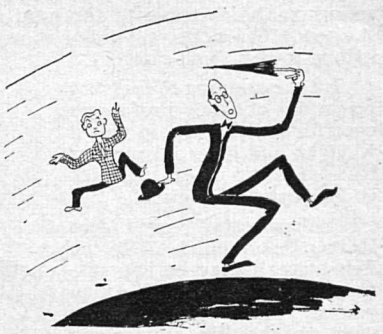
Motion sickness has also been attributed to fear, emotional instability, auto-suggestion and a whole host of other causes.

But it is now proven without doubt that the fundamental cause of motion sickness is disturbance of the non-auditory labyrinth of the ear, i.e., the semi-circular canals and the otolith organ in the vestibule."

The Professor paused for a moment to sketch on the back of an envelope. Then he went on :

" Apart from this small but complex mechanism of the labyrinth, other factors are relatively insignificant in producing motion sickness. It is interesting to note for example that deaf mutes are immune from motion sickness."

As he finished speaking, we found ourselves inside the Rotor—my pocket the poorer by another three shillings. It looked something like this.



As it began to spin round and the floor descended from beneath our feet, we were stuck helpless against the wall by enormous centrifugal force. It was two or three minutes before the cylinder began to slow down again and we were able to make our escape.

Strangely enough, I felt perfectly normal and the Professor was his own smiling self. I told him that I couldn't fit this in with his theories, but his smile grew broader as he pointed out my shoddy thinking.

He explained that there are two main types of acceleration : first, angular or rotatory ; and second, linear. Linear represents changes in speed such as one experiences in a car. Putting one's foot on the accelerator is positive linear acceleration, and putting one's foot on the brake is negative acceleration. On the Rotor we experienced only two such speed accelerations, starting and stopping—no more than in a normal car. This factor then we could cancel out. The rotational acceleration was fairly high but it affected only the horizontal canals, which have been proved to be far less susceptible to motion than the vertical canals. In other words, the horizontal canal has a much higher resistance threshold to motion.

The Professor paused to breathe, and luckily I caught sight of a refreshment booth several yards away. Within a few seconds I had pushed a large doughnut into the Professor's hand. As I had hoped, he found it difficult to continue his lecture through mouthfuls of sticky bun. I took advantage of this temporary stoppage by leading him across to the Big Dipper.

Outside a man in a flat cap was loudly shouting : " The biggest Big Dipper in the world ! Money back if you're not satisfied ! "

The Professor swallowed a large chunk of doughnut.

" Surely, my dear Palmer," he said, " you don't expect me to risk life and limb up there ! "

But a piece of dough had gone down the wrong way. He began to cough and splutter in a most un-Professor-like manner, and I was able to lead him through the barrier, changing a ten-shilling note en route. He had one long leg over the side when he suddenly realised what was happening. But the machinery started to move and retreat was cut off—for a second man in a flat cap shoved him rudely into his seat. I could see that the Professor didn't want an argument.

It was all over in less than three minutes : those horrible rushings downwards at 60 m.p.h., the the climb up to the next curve ; then hurtling down again. I crawled out of the car and looked miserably at my friend. I was feeling terrible, but he only smiled.

" Serves me right for eating doughnuts on top of chips," I remarked sadly.

" Nonsense, Palmer," he said triumphantly. " Because you do not know why you are sick, you foolishly attribute it to the food you have eaten—or to unpleasant smells, over-heated rooms, disagreeable sights, or anything else unusual, unpleasant or uncomfortable. That is most unscholarly. The real reason is this : that ride of the Big Dipper was a combination of both types of acceleration—but for the most part it was linear.

Its main effect was *not* on your horizontal canals, but on your vertical ones. A moment ago I said that the vertical canal was far more susceptible to motion than the horizontal. It is in fact generally accepted that changes in the force acting on the *long* axis of the head are a major factor in producing motion sickness. Sea-sickness, swing-sickness, sickness brought on in a lift—all these belong to this same category."

I was beginning to feel very resentful of the Professor's cheerful smile, and said that if what he had just told me was true—how was it that I felt sick and he was quite normal ?

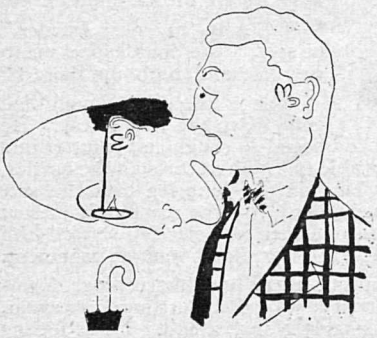
" Elementary, my dear Palmer," he replied. " In the first place, I may be less susceptible to motion sickness than you are. Secondly, when we were on the Big Dipper my vertical canals were in fact not vertical at all ! You must have noticed that I held my head at right angles to my body."

I made a mental picture of our respective head positions on the Dipper. It was quite clear that the Professor had reversed the positions of his horizontal and vertical canals—simply by bending his head forward.

Then I remembered that one of the remedies for sea-sickness was to lie down flat. Of course, this position would have exactly the same effect on the vertical canals ! In spite of my very queasy stomach, I was beginning to understand what the Professor was talking about. He went on :

" The third reason why I was not sick was because of my visual orientation. In other words, the eyes of a person are certainly involved in the genesis of motion sickness. You know that even without movement of the body or head, visual reception of motion may produce symptoms of sickness—for example watching a rough sea on the cinema screen.

But the main effect of the eyes is *inhibition* of motion sickness—that is when there *is* actual motion of the head. Blind men are, of course, susceptible to motion sickness and normal individuals—when blindfolded—actually increase their susceptibility."



The Professor added that the incidence of sickness had been found to be less when the subject kept his eyes on some object which was participating in the motion. He himself, while in the Big Dipper, had kept his own eyes on his umbrella handle. If he had watched some stationary object outside the car, there would have been more chance of his becoming sick.

I made a mental note that the next time I went on a Big Dipper I would sit with my head bent at an angle of 90° and would faithfully keep my eyes on the bottom button of my waistcoat.

As we walked away another thought struck me. Why did stimulation of the labyrinth produce so many bodily changes ? Why should one become drowsy, pale, start to sweat, feel nausea and then finally vomit ? (I was very near to final vomiting !)

The Professor, noting that I looked green about the gills, hastened to tell me.

" On exposure to motion," he said, " the sense organs of the labyrinth discharge to the brain in a particular pattern. The pattern must be repeated for some length of time before actual sickness occurs. Nausea, visceral

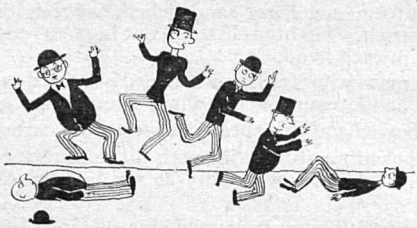
changes which come about through autonomic pathways, nervous reflexes which bring retching and vomiting—all these are striking examples of temporal summation of afferent impulses."

"But what's the point of it all ?" I asked. "I mean, what good does it do to sweat or vomit—they can hardly be called protective or part of the fight and flight mechanism !"

The Professor smiled to himself.

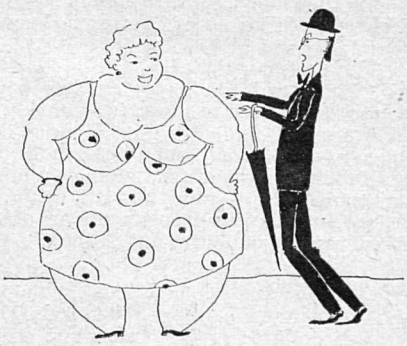
"That's just where the teleology boys fall down," he said smugly. "No—these bodily changes are certainly not adaptive conditions. In plain words there is no rhyme or reason in them whatsoever ! It may be a case of man's inventive genius outstripping his adaptability ; it may be said that as the complexity of the animal increased in evolution, and all the pathways which produce these changes became available—so the labyrinthine connections became complex in their function of maintaining balance and position of the head. Therefore you can see that disturbance of the labyrinth itself would automatically involve disturbance of these reflex pathways—without thereby serving any useful purpose.

Nature, without man's inventions of the aeroplane, Big Dipper, elevator, Tin Lizzie and the rest, does not provide adequate stimulus to produce motion sickness. Man was not put on earth to go spinning round like a teetotum or



jumping up and down like a jack-in-the-box. In fact, one might make an analogy by saying that if Nature had intended man to smoke, she would have provided him with a chimney in his head !"

Before I had fully recovered from my experiences on the Big Dipper, I found myself inside a large booth. I had lost my friend —but when the stage curtains drew back, this is what I saw : the Fat Lady giving the Professor the glad eye. Apparently his strictly scientific interest had been misconstrued. He rejoined me hurriedly, and began to lecture me again in order to conceal his embarassment.



"Here's another growth problem like giantism," he said, "but this time involving latitude instead of longitude. Now there are two main types of obesity : exogenous and endogenous. This one is obviously—"

I tapped him on the shoulder.

"Endogenous ?" I suggested.

He looked surprised, but I quickly explained that the Physiological Society at Guy's had given us an excellent paper on the subject. I knew that the fundamental cause of obesity was an imbalance between energy intake and energy output—but what worried me was that, regardless of the fact that this was glandular misbehaviour, the Fat Lady's intake must be enormous. I spoke my thoughts aloud.

" It must cost a fortune to feed her," I said. " No wonder they charge a bob a time ! "

" Not at all," the Professor replied. " You're accustomed to taking baths, I suppose ? "

I blinked, then nodded when I recalled my last bath.

" Then," continued my friend, " you'll know that the level of the water in your bath depends on two factors : the inflow from the tap and the outflow via the plughole. Very well, adapt this illustration to any balance of the body—be it nitrogen balance, calorific balance or temperature balance—and you will realise that you cannot discuss the system without considering, as it were, the plugholes as well as the tap ; in other words, the output as well as the intake. You are only considering the Fat Lady's intake, and presumably assumed her energy output normal. One might say instead that it is the other way round : her food intake is roughly normal, but her glandular state considerably lowers her energy output, i.e., her basal metabolism."

So ended the Professor's lecture, and we went out as the Fat Lady moved towards my friend. When we got outside it was getting dark, and all the lights of the Fair were coming on one by one. The Professor looked at his watch and murmured something about an appointment at the Hospital the same evening. There was just time for one more sideshow . . . for once we were in agreement—we must go to see Fernando the Fire-Eater.

Fernando's platform-stage was sandwiched between the Wall of Death and the Human Ostrich. He himself stood out in front, stripped to the waist, flourishing a torch in each hand.

" Here is the man who feeds on flames," shouted a barker. " Come inside and see Fernando eating fire ! Only one shilling each ! "

The fire-eater bowed and disappeared between the curtains.

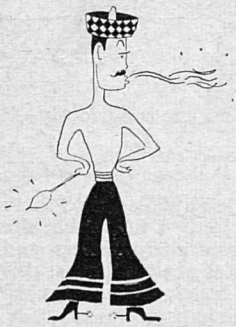
The Professor poked me in the ribs with his umbrella, and asked me what I was waiting for. I looked resignedly at my last two-shilling piece as it changed hands.

When the tent was full, Fernando made his entrance. He first soaked the end of a torch in petrol, then fired it with a match. There was dead silence as he bent his head backwards and thrust the blazing torch into his mouth. Then, as the audience gasped, he slowly closed his mouth over the flame. A burst of cheering greeted this amazing sight.

" I know they coat their mouths with some sort of chemical," I said to the Professor. " But no-one seems to know what chemical they use. Perhaps you can tell me ? "

The Professor sighed.

" I'm afraid that's yet another popular fallacy," he told me. " No chemicals are used to protect the mouth. Nature does that very successfully on her own. Let's see, you've been doing the seven functions of saliva, haven't you ? Well, you'd better add this one to your list : the moistening of all the soft parts of the mouth as a protection against burning. A possible explanation of fire-eating is this : as the torch flames come into contact with the moisture, a thin insulating layer of steam is formed, which protects the buccal cavity from burns and blisters."



" But surely there's more to it than that ? " I asked.

" Certainly there is," replied my friend. " Hasn't it occurred to you that the lungs play a very important part ? "

As if to illustrate the Professor's point, Fernando next took a mouthful of petrol, blew it out in a fine spray, and ignited it. Great tongues of flame came darting across to the audience, as Fernando blew harder. I could see what the Professor meant.

" You see, Palmer," he added. " The vital thing about fire-eating is never to inhale. The fire-eater must be exhaling all the time the torch is in his mouth, in order to keep the flames away from his lips, above all—to prevent fumes blowing

back into the lungs and exploding. If that happened, that would be the end of the fire-eater ! "

We moved sadly out of the tent and walked across to the exit. The Professor hailed a passing taxi, and was whisked away. I looked despairingly at the linings of my empty pockets, and began the long journey home on Shank's Mare. Back in my little room, I drew the curtains, brewed a pot of tea, and settled down once more to . . .

Big *Best and Taylor* . . . Little *Best and Taylor* . . . and Gray's *Anatomy*.

WINNERS OF THE INTER-HOSPITALS LAWN TENNIS CUP

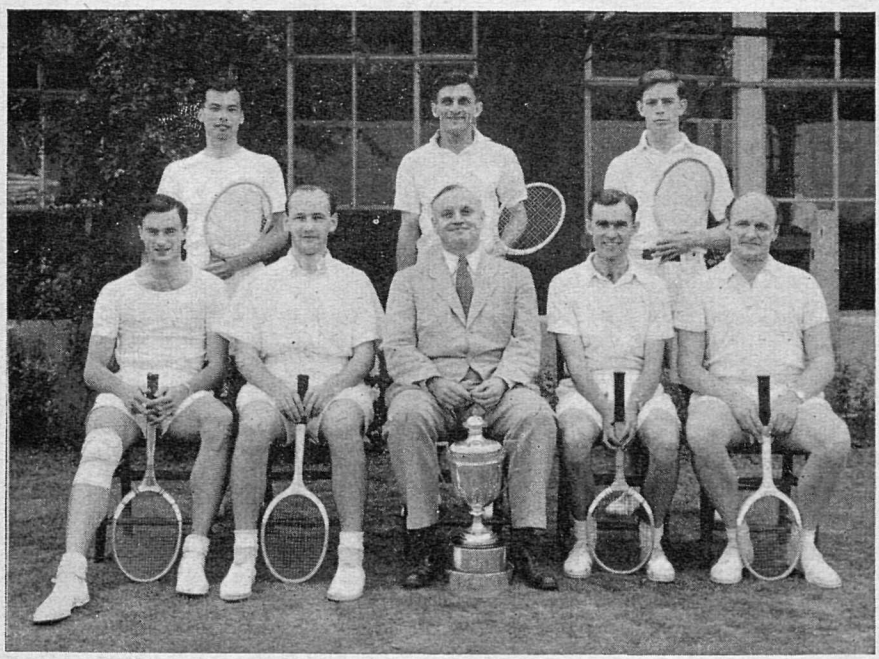


Photo by Payne-Jenkin

K. Thomas, D. V. Duckworth, J. W. Osborn
P. Frost, F. A. F. Biddle (Capt.), Guy Blackburn, Esq., J. A. A. Bullard (Hon. Sec.), S. Hooper

Sport

LAWN TENNIS CLUB

Guy's *v.* Eastbourne
Result—Won 6—2

Guy's *v.* Private Banks
Result—Won 7—2

Guy's *v.* Chiswick
Result—Won 7—1

Inter-Hospitals' Cup Final

Guy's *v.* London Hospital

Result—Won 9—0

Guy's, the holders, were without P. J. Frost (last year's University of London Singles Champion) owing to a knee injury, but fielded a strong side. In previous rounds Guy's had beaten Middlesex 8–1 and University College 5–1. London defeating Westminster 5–3, St. Bartholomew's 5–4 and St. Thomas's 5–4.

Play started in very threatening weather and slight drizzle made conditions treacherous for a short time. Guy's went into a 3–0 lead at the end of the first round, beating their respective opposite numbers. Then quickly brought a decision in the 2nd round when they won all three matches to lead 6–0, and cleared the board in the third round to win 9–0. So convincing was the victory that not a set was dropped.

It was most pleasing to see the Presidents of Guy's and London Tennis Clubs, Mr. Guy Blackburn and Mr. Hermon Taylor, and the President of the United Hospitals' L.T.C., Mr. Alchin, present. Guy's on their own ground were well supported by members of the Staff and students of the Hospital.

We wish to express our thanks to the representatives of the Umpires' Association for officiating, to Messrs. Slazengers for supplying equipment, and particularly to Mr. J. Goodliffe for his help in organising the Final.

Team :
F. A. F. Biddle and J. H. H. Bullard.
S. Hooper and J. Osborn.
D. Duckworth and K. Thomas.

Guy's *v.* Mr. Guy Blackburn's VI

Result—Won 7—2

The Hospital VI continued their run of victories at the expense of the Staff in this annual feature, at H.O.P. on July 27th. The teams and results were as follows :—

Staff

Mr. Guy Blackburn and S. Hooper
Lost to F. Biddle and J. Bullard.
Lost to D. Duckworth and J. Osborn.
Beat K. Thomas and J. Chard.
I. Kelsey Fry and P. Counsell
Lost to F. Biddle and J. Bullard.
Lost to D. Duckworth and J. Osborn.
Beat K. Thomas and J. Chard.
Mr. J. Blaikley and R. Marsh
Lost to all pairs.

Guy's *v.* City Police

Result—Won 4—0

Only two pairs were put out in this very keenly contested match and we are very pleased to report the first victory (according to our opponents) over the Police on their ground at Brixton.

Team : F. A. F. Biddle and J. A. A. Bullard.
P. J. Frost and I. Kelsey Fry.

CRICKET

Guy's 1st XI *v.* Ashford

Away. Result—Lost

Guy's 150. Ashford 153–5

Guy's

N. R. Cooke, c. Littledale, b. Smith	6
W. J. Howells, c. Smith, b. Nelson	24
E. R. Gibbons, c. Hobbs, b. Nelson	39
M. Dunstan, run out	4
D. W. Atkinson, c. Brand, b. Smith	4
M. A. C. Lyon, l.b.w., b. Nelson	41
M. Willis, b. Nelson	7
W. A. Cahill, l.b.w., b. Smith	1
F. H. Trist, b. Smith	1
D. Parry, b. Tennent	1
N. Labuschagne, not out	2
Extras	20
	150

Bowling : Lyon, 16-5-34-3 ; Labuschagne, 3-0-4-0 ; Cooke, 7·5-2-19-0 ; Willis, 6-1-28-2; Atkinson, 10-2-39-0 ; Trist, 3-0-16-0.

Guy's 1st XI *v.* Crofton Park

At H.O.P. Result—Drawn

Crofton Park 216–2. Guy's 164–2

Guy's

N. R. Cooke, run out	50
W. J. Howells, c. Stewart, b. Hawkins	1
E. R. Gibbons, not out	60
A. Prince, not out	37
M. A. C. Lyon did not bat	
D. W. Atkinson " " "	
M. Willis " " "	
W. A. Cahill " " "	
J. Riley " " "	
D. Parry " " "	
D. Robertson " " "	
Extras	16
	164

Bowling : Lyon, 14-1-54-1 ; Atkinson, 12-1-46-1 ; Willis, 12-1-38-0 ; Cooke, 10-0-53-0 ; Howells, 2-0-13-0 ; Riley, 2-0-9-0.

Guy's 1stXI *v.* Wallington

At H.O.P. Result—Won

Wallington 107–9. Guy's 110–8

Guy's

D. M. Allan, c. Ready, b. Rose	21
N. R. Cooke, c. & b. Rose	10
A. Prince, b. Rose	10
D. M. Lipington, b. Blundell	1
E. R. Gibbons, b. Rose	11
W. J. Howells, c. Gravette, b. Blundell	1
F. H. Trist, b. King	31
M. Willis, l.b.w., b. King	5
D. W. Atkinson, not out	12
D. Robertson, not out	1
N. Labuschagne, did not bat	
Extras	7
	110

Bowling : Atkinson, 7-1-15-2; Labuschagne, 13-2-24-2 ; Allan, 13-3-24-1 ; Cooke, 2-0-3-0; Willis, 8-2-19-3 ; Trist, 4-1-12-1.

Guy's 1st XI *v.* St. Lawrence

At H.O.P. Result—Won

St. Lawrence 41. Guy's 44–0

Guy's

N. R. Cooke, not out	.. .. ..	24
D. M. Lipington, not out	.. .. ..	20
A. F. Jones	did not bat	
H. R. Bissoon Dath	„ „ „	
K. W. Gray	„ „ „	
A. Fearn	„ „ „	
D. W. Atkinson	„ „ „	
F. H. Trist	„ „ „	
W. J. Howells	„ „ „	
M. Willis	„ „ „	
N. Labuschagne	„ „ „	
Extras	.. ..	0
		44

Bowling : Gray, 7-4-8-0 ; Labuschagne, 13-6-15-7 ; Bissoon Dath 7-1-12-2 ; Willis, 1-0-2-1.

Guy's 1st XI *v.* Private Banks

At Catford. Result—Lost

Private Banks 175–8 dec. Guy's 135

Guy's

N. R. Cooke, c. Ebenezer, b. Thresher ..	0
M. Williams, c. Weaver, b. Thoy ..	28
D. M. Lipington, l.b.w., b. Glitz ..	4
E. R. Gibbons, c. McMahen, b. Thresher	18
W. J. Howells, st. Ebenezer, b. Brown ..	35
H. R. Bissoon Dath, c. Weaver, b. Thresher	22
K. Gray, b. Brown	0
F. H. Trist, b. Glitz	16
N. Labuschagne, b. Brown	0
J. Riley, c. Thoy, b. Brown	0
M. Willis, not out	4
Extras	8
	135

Bowling : Labuschagne, 13-2-31-3 ; Gray, 17-1-59-3 ; Bissoon Dath, 10-0-54-1 ; Cooke, 5-1-17-1 ; Willis, 3-0-8-0.

Guy's 1st XI *v.* R.N.V.R.

At H.O.P. Result—Lost

Guy's 228–7 dec. R.N.V.R. 231–2

Guy's

N. R. Cooke, b. Goold	6
M. Williams, run out	31
D. M. Lipington, c. Stannard, b. Robinson	29
D. M. Allan, c. & b. Kane	16
H. R. Bissoon Dath, b. Hawkey	21
E. R. Gibbons, c. Hazel, b. Goold ..	36
M. Willis, b. Thorning	25
W. J. Howells, not out	50
F. H. Trist, not out	5
A. Cahill did not bat	
N. Labuschagne „ „ „	
Extras	9
	228

Bowling : Labuschagne, 9-1-32-1 ; Cooke, 7-0-45-0 ; Trist, 4-0-31-1 ; Allan, 5-0-44-0 ; Bissoon Dath, 5-0-38-0 ; Willis, 2-0-17-0 ; Williams, 2-0-18-0.

Guy's 1st XI *v.* Kenley

Away. Result—Drawn

Kenley 206–4 dec. Guy's 158–8

Guy's

F. H. Trist, b. Kiek	21
N. R. Cooke, c. Callaway, b. Kiek ..	20
D. Atkinson, c. Coates, b. Callaway ..	16
A. d'A. Fearn, b. Kiek	0
M. Willis, st. Gillham, b. Callaway ..	2
D. Robertson, c. Brown, b. Hiatt ..	15
W. Howells, c. Henderson, b. Callaway ..	48
K. Gray, c. Harley, b. Kiek	6
M. Williams, not out	3
D. Lipington, not out	8
A. F. Jones, did not bat	
Extras	19
	158

Bowling : Gray, 12-3-41-0 ; Atkinson, 9-2-32-1 ; Willis, 8-2-26-0 ; Cooke, 9-1-40-1 ; Howells, 6-0-50-0 ; Trist, 2-0-7-0 ; Williams, 2-0-10-1.

Guy's 1st XI *v.* Finchley

At H.O.P. Result—Lost

Finchley 159. Guy's 96

Guy's

N. R. Cooke, c. Williams, b. Gardener ..	9
R. Gibbons, c. Harrish, b. Farrow ..	32
P. Pickett, c. Gobey, b. Farrow	5
N. Labuschagne, b. Farrow	0
H. Davies, b. Farrow	2
A. d'A. Fearn, l.b.w., b. Norrish	1
M. Willis, c. Williams, b. Norrish ..	2
D. Atkinson, c. Williams, b. Norrish ..	0
H. Bissoon Dath, b. Gardener	11
F. H. Trist, l.b.w., b. Norrish	2
W. J. Howells, not out	27
Extras	5
	96

Bowling : Labuschagne, 9-1-26-1 ; Atkinson, 6-2-16-1 ; Cooke, 6·1-3-16-1 ; Bissoon Dath 6-0-35-1 ; Pickett, 11-3-41-3 ; Trist, 3-1-8-1 ; Willis, 2-0-4-1.

Guy's 1st XI *v.* Streatham

At H.O.P. Result—Lost

Guy's 150. Streatham 154–4

Guy's

N. R. Cooke, b. Goodson	24
R. Gibbons, c. Ethridge, b. Goodson ..	36
W. J. Howells, b. Goodson	2
M. Willis, c. Davis, b. Goodson	0
H. Bissoon Dath, c. Rogers, b. Goodson	34
F. H. Trist, b. Goodson	6
C. W. H. Moore, b. Goodson	12
D. Atkinson, b. Goodson	21
J. Riley, c. Brown, b. Keeping	2
D. Parry, not out	9
W. Wooding, run out	1
Extras	3
	150

Bowling : Bissoon Dath, 5-0-29-1 ; Willis, 14-4-39-2 ; Atkinson, 8-3-23-1 ; Trist, 3-0-13-0 ; Cooke, 6-0-32-0 ; Wooding, 3·3-0-13-0.

Guy's 1st XI *v.* R.N.V.R.

Away. Result—Won

R.N.V.R. 84. Guy's 85–3

Guy's

M. Williams, l.b.w., b. Crabbe	24
R. Gibbons, run out	4
D. Lipington, st. Henderson, b. Cane ..	21
H. Bissoon Dath, not out	19
W. Howells, not out	14
F. H. Trist, did not bat	
D. Atkinson ,, ,, ,,	
M. Willis ,, ,, ,,	
A. d'A. Fearn ,, ,, ,,	
D. Parry ,, ,, ,,	
N. Labuschagne ,, ,, ,,	
Extras	3
	85

Bowling : Labuschagne, 14-6-21-4 ; Atkinson, 13-6-30-3 ; Bissoon Dath, 5-0-28-2 ; Willis, 4-1-3-1.

Guy's 1st XI *v.* Rabbits

At H.O.P. Result—Won

Rabbits 141. Guy's 142–9

Guy's

N. R. Cooke, b. Thorpe	5
E. R. Gibbons, b. Martindale	7
D. M. Lipington, st. Jenkinson, b. Martindale	46
M. Williams, c. & b. Martindale	5
H. R. Bissoon Dath b. Winter	0
W. J. Howells, l.b.w., b. Martindale ..	5
F. H. Trist, c. May, b. Martindale ..	56
D. Atkinson, b. Bishop	15
M. Willis, not out	0
M. A. C. Lyon, st. Jenkinson, b. Bishop	0
D. Parry, not out	1
Extras	2
	142

Bowling : Lyon, 16-4-33-5 ; Atkinson, 8-0-25-1 ; Cooke, 1-0-5-0 ; Trist, 4-0-19-1 ; Willis, 14-3-3-36-3 ; Bissoon Dath, 2-0-11-0.

Guy's 1st XI *v.* Orsett

At Orsett. Result—Lost

Orsett 190–3. Guy's 68

Guy's

N. R. Cooke, c. Thompson, b. Marshall	31
E. R. Gibbons, c. Hendrey, b. Marshall	13
D. M. Lipington, b. Marshall	4
A. Fearn, b. Marshall	1
A. Harris, b. Marshall	0
W. J. Howells, b. Marshall	2
F. H. Trist, c. Chimney, b. Marshall ..	8
J. Riley, b. Wells	2
M. Willis, st. Williams, b. Wells	2
T. Smith, not out	4
N. Labuschagne, c. & b. Marshall ..	0
Extras	1
	68

Bowling : Labuschagne, 7-0-30-0 ; Smith, 8-0-40-1 ; Willis, 12-1-47-0 ; Trist, 4-0-14-0 ; Riley, 5-0-12-0 ; Cooke, 5-0-20-0 ; Lipington, 2-0-7-1.

Guy's 1st XI *v.* Casuals

At H.O.P. Result—Lost

Guy's 107. Casuals 108–5

Guy's

E. R. Gibbons, b. Lewis	17
D. M. Lipington, b. Stenson	26
J. Allen, b. Lewis	0
F. H. Trist, b. Thompson	9
N. R. Cooke, c. Subba Row, b. Stenson ..	11
W. J. Howells, c. & b. Subba Row ..	34
C. F. M. Robinson, run out	0
A. Cahill, st. Smith, b. Subba Row ..	1
T. Smith, not out	4
R. Jones, c. Thompson, b. Subba Row ..	0
N. Labuschagne, c. Thompson, b. Subba Row	0
Extras	5
	107

Bowling : Labuschagne, 18 1-2-38-0 ; Smith, 12-6-25-4 ; Trist, 3-0-11-0 ; Cooke, 5-1-13-1 ; Gibbons, 5-0-15-0.

Hospital Information, etc.

APPOINTMENTS VACANT

GUY'S HOSPITAL

The Board of Governors of Guy's Hospital invite applications from registered **Dental Practitioners** for the following appointments :

2 part-time **Registrars** to act as Assistants to the Visiting Dental Surgeons, with attendance on 6 and 5 sessions per week, to commence duties on **1st October, 1952.**

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1, to whom applications should be sent not later than **20th August, 1952.**

There is a vacancy for a trained **Dental Surgery Assistant** in the Dental Department at Guy's Hospital. Duties to commence as soon as possible. Salary at the rate of £245 × £10—£275, with lunch, tea and uniform overalls provided.

Applications, giving age and details of previous experience, together with copies of two testimonials should be lodged with the Superintendent on or before **23rd August, 1952.**

RESEARCH FELLOWSHIP IN DEPARTMENT OF CHILD HEALTH

Applications are invited for a part-time **Research Fellowship** in the **Department of Child Health** for work on certain aspects of Pink Disease. Salary £500–£750 per annum according to experience. It is hoped that the Fellow will also hold the Fripp Fellowship. Applications should be sent to the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, **as soon as possible.**

SIR ALFRED FRIPP MEMORIAL FELLOWSHIP

Applications are invited for the **Sir Alfred Fripp Memorial Fellowship** in **Child Psychology** tenable at Guy's Hospital. The Fellowship is open to medically qualified men or women under the age of 35, preferably with experience in Pædiatrics as well as in Psychological Medicine. Stipend £250 per annum. The appointment is for two years and may be held concurrently with a part-time appointment at Guy's or elsewhere. Applications should be forwarded to the Dean, Guy's Hospital Medical School, S.E.1 (from whom copies of the regulations may be obtained), together with the names of three referees, not later than **1st September, 1952.** Candidates should submit with their applications particulars of their previous career and a definite scheme of advanced study or research to be carried out during the tenure of the Fellowship.

RESEARCH FELLOWSHIP IN THE THORACIC SURGICAL UNIT

Applications are invited for a full-time **Research Fellowship** in the **Thoracic Surgical Unit** for research on cardiovascular problems, commencing on 15th October, 1952. It is desirable that applicants should possess a higher qualification in Surgery. Salary will depend upon the experience of the person appointed. Applications, with the names of three referees, should be sent to the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, not later than **7th September, 1952.**

NOTICE

FINAL F.D.S. EXAMINATION

The Faculty of Dental Surgery of the Royal College of Surgeons of England have decided to alter the date of the next Final F.D.S. Examination. The Written Paper will be held on 15th January, 1953, and the Clinical and Oral part commence on 19th January, 1953. Applications will now be due on 4th December, 1952.

PAPERS BY GUY'S MEN

Bishop, P. M. F. Cortisone, Its Present Position and Clinical Applications. *Medical Annual*, 1952, p. 101.

Bradley, W. H. Articles in *Medical Annual*, 1952. Atmospheric Smoke Pollution, p. 59 : Brucellosis, p. 85 : Feeding of School Children, p 138 : Mechanism of Man's Resistance to Infectious Diseases p. 180 : Epidemic Influenza, p. 181 : Attenuation of Measles, p. 220 : Poliomyelitis following Innoculation, p. 290 : Tuberculosis : Biological Aspects, p. 386 : World Health Organisation, p. 422.

Cohen, Sol. M. Peripheral Aneurysm and Arteriovenous Fistula (Hunterian Lecture). *Ann. R. Coll. Surg. Engl.*, 1952, **11,** 1.

Douthwaite, A. H., and Shaw, A. Batty. Control of Gastric Acidity. *Brit. med. J.*, 1952, ii, 180.

Holman, C. C. Urinary Tuberculosis with Extensive Calcification of the Bladder. *Brit. J. Surg.*, 1952, **40,** 90.

Kinder, C. H. A Case of Spontaneous Rupture of the Inferior Epigastric Artery Simulating Acute Intestinal Obstruction. *Brit. J. Surg.*, 1952, **40,** 88.

McKeown, Thomas, and another. A Scheme for the Care of the Aged and Chronic Sick. *Brit. med. J.*, 1952, ii, 207.

Richards, H., and another. The Ultra-Short-Acting Relaxants. *Brit. med. J.*, 1952, i, 1334.

Rogers, Talbot. Discussion on the Possible Future Use of Cortisone and ACTH in General Practice. *Proc. R. Soc. Med.*, 1952, **45,** 377.

Rook, Sir Alan. Discussion : Health. Its Study and Culture in the Nation To-Day. *Proc. R. Soc. Med.*, 1950, **45,** 467.

Rushton, Martin A. The Prevention of Dental Caries. *Med. Pr.*, 1952, **228,** 98.

Scott, L. G. Dysplasia Epiphysealis Multiplex. *Proc. R. Soc. Med.*, 1952, **45,** 452.

Scott, L. G. Dysplasia Epiphysealis Punctata. *Proc. R. Soc. Med.*, 1952, **45,** 453.

Still, Hereford, and another. Homologous Serum Jaundice Transmitted by a Tattooing Needle. *Canad. med. Ass. J.*, 1950, **62,** 75.

Scott, L. G., and others. Two Cases of Diabetes Mellitus in Infants under 1 year. *Brit. med. J.*, 1952, **1,** 1060.

Smith, R. E. In Finland. *Lancet*, 1952, **1,** 1109.

Stack, M. V., and Williams, G. Quantitative Variation in the Total Organic Matter of Enamel. *Brit. dent. J.*, 1952, **92,** 261.

Stamm, T. T. The Unscrewed Foot. *Med. Pr.*, 1952, **227,** 589.

Stewart, I. McD. G. Early Pulmonary Tuberculosis and the General Practitioner. *Practitioner*, 1952, **168,** 634.

Symonds, Sir Charles. Discussion on Pathology, Diagnosis and Treatment of Intracranial Saccular Aneurysms. *Proc. R. Soc. Med.*, 1952, **45,** 302.

Symonds, Sir Charles. Intracranial Thrombophlebitis. *Ann. R. Coll. Surg. Engl.*, 1952, **10,** 347.

Taylor, A. Gordon. The Origins of Man. *Brit. dent. J.*, 1952, **92,** 315.

Warner, E. C. Critical Essays—Medicine. *Brit. Encycl. Med. Pract., Medical Progress*, pp. 1–24, Butterworth, 1952.

Wheatley, David. Relief of Acute Left Ventricular Failure by "Priscol". *Brit. med. J.*, 1952, i, 1174.

Willcox, D. R. C. Hæmolytic Anæmia and Reticuloses. *Brit. med. J.*, 1952, i, 1322.

Wilson, Peter. A Case of Pyrexia of Unknown Origin. *Postgrad. med. J.*, 1952, **28,** 366.

GUY'S HOSPITAL REPORTS

1952. Vol. 101

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Scott, G. W. Inhalation and Chest Infection Following Dental Extraction. pp. 77–107.
Horton, R. E. The Gastro-Epiploic Arteries. With a Note on the "Bald Area" and the Oblique Artery of the Omentum. pp. 108–110.
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Mant, A. K., Trounce, J. R., and Vulliamy, D. G. Disease of the Coronary Arteries as a Cause of Death in Infancy and Childhood. pp. 115–125.
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A review will appear in the next issue.

PASS LIST

UNIVERSITY OF LONDON

M.S.

July, 1952

Branch I (Surgery)

R. E. Horton P. G. Large

Academic Postgraduate Diploma in Public Health

June, 1952

C. V. Harries A. J. Walker M. D. Warren

Academic Postgraduate Diploma in Tropical Medicine and Hygiene

June, 1952

B. O. L. Duke

Academic Postgraduate Diploma in Bacteriology

A. J. Beale

Special Second Examination for Medical Degrees

July, 1952

M. L. A. B. Bancilhon	Moira A. McLellan
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J. R. Daly	G. B. Middle
J. M. P. Davies	C. M. Montegriffo
W. R. O. Eggington	R. I. Muir
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N. W. Glendinning	D. L. Parry
R. I. Henry	K. E. Thomas
G. I. Horsfield	C. J. Wallace
I. D. Hudson	T. M. Winstanley

ROYAL COLLEGE OF SURGEONS OF ENGLAND

F.R.C.S.

Primary Examination

July, 1952

F. G. Ellis
J. L. Hayward
E. F. Soothill
J. L. Williams
A. W. R. Williamson
J. H. B. Yule

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS MEMBERSHIP

J. A. Williams

CONJOINT BOARD

L.R.C.P., M.R.C.S.

Final Examination

July, 1952

Pathology

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E. C. Dawson
Sheila M. Forbes
J. M. S. Grieve
*R. J. W. Lambert
C. E. Lay
H. E. Lichtenstein
G. L. Money
Margaret J. Purser
J. A. Rozario
W. A. St. John
S. C. C. Scott
*G. Screech
A. D. Tuddenham
J. L. Turk
A. H. Vaughan
Dorothy J. Whitney
K. J. œilkha

Midwifery

D. P. Adamson
F. A. F. Biddle
W. M. S. Boyd
*June E. Brett
J. A. D. Briggs
R. Y. Calne
G. J. R. Clarke
D. V. Duckworth
P. G. Dunbar
G. Evans
Sheila M. Forbes
R. C. Francis
*W. D. Hayley
*E. R. Herst
E. C. Howarth
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E. N. McKenzie
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A. A. Roe
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S. C. C. Scott
T. B. Stephen
M. K. Strelling
A. Trenhaile
B. A. Tudgay
J. L. Turk
Dorothy J. Whitney
K. J. Zilkha

Surgery

*K. B. Bender
*M. H. H. Bishop
*June E. Brett
*C. C. Bull
*W. F. Dummer
N. B. Gillison
E. N. McKenzie
*G. L. S. Rankin
*J. M. Rigg
W. A. G. Roper
*G. Screech

Medicine

*V. Ainsworth
*C. C. Bull
L. M. Davis
*A. G. E. Fung-a-Fat
P. O. Hirsch
E. C. Howarth
*R. J. W. Lambert
H. E. Lichtenstein
J. U. MacWilliam
F. G. M. G. Myer
*W. N. B. Parker
*G. Screech
*Joyce D. Waye

* Have completed the examination.

FACULTY OF RADIOLOGISTS FELLOWSHIP

W. N. Thomson (*Radiodiagnosis*)

CENTRAL HEALTH SERVICES COUNCIL

STANDING ADVISORY COMMITTEES

The following appointments have been made.
Dental: Prof. Martin Rushton, M.D., F.D.S.
Ophthalmic: O. Gayer Morgan, M.Ch., F.R.C.S.

MEDICAL RESEARCH COUNCIL

Eli Lilly Travelling Fellowship in Medicine

Dr. C. J. Earl

ROYAL COLLEGE OF SURGEONS OF ENGLAND

Arris and Gale Lecture

Mr. H. F. Lunn will deliver one lecture on "High Ligation of the Neck of the Sac in Inguinal Hernia."

APPOINTMENTS

I. J. MacQueen, M.B., B.S., appointed Assistant Lecturer in Anatomy at Sheffield University commencing 1st October, 1952.

K. W. Nicholls Palmer, T.D., D.Phys.Med., appointed Consultant in Physical Medicine to the Colchester Group of Hospitals.

A. Batty Shaw, D.M., M.R.C.P., Arthur Durham Travelling Studentship, Guy's Hospital.

Gavin Thurston, M.R.C.P., H.M. Deputy Coroner for Metropolitan Essex.

BIRTHS

BEALES.—On 22nd May, 1952, at Nuffield House, to Ruth (née Burgess), wife of C. Maxwell Beales, L.D.S., R.C.S.—a daughter (Carol Anne).

BULLEID.—On 18th July, 1952, at Southampton Maternity Unit, to Jeanne (née Clarke), wife of John Bulleid—a daughter (Nicola, Jane).

BUTCHER.—On 11th July, 1952, at Newport, Monmouthshire, to Margaret (née Dawson), wife of Peter Butcher—a son (Nigel John).

GOULDING.—On 31st July, 1952, at Nuffield House, to Molly (née Fowler), wife of Roy Goulding—a son (Julian).

McKIE.—On 18th July, 1952, at Nuffield House, to Joan (née Holt), wife of Stewart McKie—a brother for David.

MAYSON.—On 19th July, 1952, at "Abbotsleigh", Rolle Road, Exmouth, Devon, to Eileen (née Coggon), wife of Norman Mayson, L.D.S.—a son (Howard John).

MARRIAGE

ALLDAY—HAYNES.—On 29th July, 1952, at Slough, Richard Kine Allday, M.B., B.S., to Philippa Margaret Haynes, S.R.N.

DAVIES—VAN LEUVEN.—On 19th July, 1952, in London, Howard Davies, M.D., to Brenda Van Leuven, M.R.C.P.

DEATH

VOGWELL.—On 13th July, 1952, (suddenly), James Sanderson Vogwell, L.D.S., R.F.P.S. (Glas.), of 80, Oswald Road, Scunthorpe, Lincs.

EDS. { P.A.Z. E.E.D.T.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1672 23*rd August* 1952 *One Shilling*

PASSIM

Time on Our Hands

THE quiet seclusion of the Park whose boundary walls are today brilliantly gay with flower-filled window boxes, seems far removed from the confused roarings of the traffic that sweeps a few hundred yards away beside the grey tower of St. Saviour's Cathedral—a traffic that seems ever to cast sidelong glances at its gilded clock face which, for years, has marked the passage of time in silence. This clock, indeed, has been about the only silent, yet moving, item in the whole conglomeration of humanity and machines beside it and below. Till lately. A few days ago, for a brief period, it was silent no longer.

To the present generation sunning itself on the grass at Guy's the quarter chimes (albeit not always synchronised with the position of the hands on the dial) sounded unfamiliar. That they are silent again—we believe powerful local disapproval prevailed—throws, if anything, into greater prominence the timeless character of the Park. In this inner sanctuary of the Hospital the passing day is marked by nothing more than an occasional echo of the hours struck from St. George's Church, the twice repeated siren wail at 1.25 and 1.30 in the afternoon, and the lengthening shadows cast by the evening sun. Glance where you will : sit where you choose : you cannot tell (without a watch) the passage of time by more accurate measures than these. In this respect alone perhaps does the Park differ widely from a green college garden at Oxford to which Sir Heneage Ogilvie in his clinical lecture lately compared it. At the older University a dozen lazy chimes mark the quarters : half a dozen more add the tally of hours. But here the day's whispering flight is unrecorded and unrung.

We would not have it otherwise. Indeed a modesty which declines to use the obvious horological potentialities of the site, adds, if anything, to the Park's many attractions. The giant brick figure which plunges, square, into the sky above Hunt's House—an ideal clock tower if ever there was one—casts the stare of its four dull faces, like some double Janus, blankly over the Borough and beyond. It is a gigantic wallflower which, for a hundred years, has sat out, not even deigning to beat time to the dance of humanity below. On the opposite side a circular depression of moulded stone (obviously intended to carry a dial and hands) plumb in the middle of the pediment of Shepherd's House, is as sightless today as the Cyclops of old after the ministrations of a crafty Odysseus.

Hunt's silent sentinel, Shepherd's sightless eye, preserve, as twin guardians, the serenity of the Park. Sitting there the other day while a brilliant sun chequered the shade around this familiar patch of green, we had cause to be grateful to the eccentric genius of Robert Hooke. His claim, we reflected, to have invented the hairspring contributed much to the accuracy of the watch that we fingered contentedly under our sleeve. Clock or no clock, chime or no chime, we could sit at peace for a while, here in the Park, with time on our hands.

We congratulate Mr. A. J. McNair, who retired from the staff at Guy's earlier this year, on his election to Vice-President and Honorary Librarian of the Royal College of Obstetricians.

The Work of a General Practitioner

By JOHN FRY, M.B. F.R.C.S.

(Published by courtesy of the Editor of the *British Medical Journal*.)

Introduction

IT has been estimated that two out of every three medical students enter general practice. The majority of them qualify knowing nothing of the work and conditions of this branch of medical practice. It is therefore distressing to learn of the disparaging comments which are often made by junior hospital officers concerning general practice and its practitioners.

General practice is the largest section of the medical fraternity. The work differs in that it is chiefly concerned with common minor maladies and those serious illnesses which do not require admission to hospital. The family doctor is the first line of medical defence and is consulted at the onset of all illnesses. He has to be an expert in diagnosis and therapeutics and must be well able to deal with people as individuals. General practice enables one to get an insight into the vast amount of illness with which human beings are afflicted, its records are one of the easiest and reliable methods by which the morbidity of a community may be studied. The great importance of estimating and knowing the amount of ill-health in the nation has only recently been stressed. Other sources of information on this subject are the notification of infectious diseases, certification of certain scheduled diseases for purposes of entitlement to special food allowances, hospitals and National Health Insurance records, the disabled persons register and the reports issued by the National Morbidity Survey of the Central Office of Information. This particular report is based upon the records from a single general practice over a period of one year (1951).

Description of Practice and Mode of Work

The work in a general practice varies both in type and in volume with the situation of the practice, the facilities available for diagnosis and therapeutics and to a very large degree on the practitioner himself. This particular practice is situated in the S.E. urban outskirts of London. It is a thickly populated district and the area covers some four square miles. A typical day commences at 8.30 a.m. with a domiciliary visiting round until 9.30 a.m. when the morning consulting session begins. This goes on until 11.30 a.m. From this time until 1.30 p.m. a second visiting round is completed. The afternoons are occupied with hospital duties on three days and with completing any work left over from the morning. A second consulting session is from 6–8 p.m.

The number of patients seen at these sessions averages 25 for each consulting session, and 10 daily visits are usually necessary. The average time taken for each consultation is 5 minutes, and that for a visit 10–15 minutes.

It must be emphasised that the majority of patients seen in consulation do not need a complete medical examination, but often merely require a repeat of a previous prescription or some form of certificate. Those who do need a full medical examination are usually seen by appointment at a mutually convenient time.

There are no consultations on two evenings or on Sunday, and arrangements are made with a neighbouring practitioner for a rota system. A part-time secretary is employed to assist with the administrative work. There are admirable local facilities for carrying out radiological and pathological investigations at the local hospital and the area is well supplied with hospitals.

It is appropriate at this stage to give the numbers of patients who were referred to hospital and consultants, and for pathological or radiological investigations during 1951. (Table 1.)

TABLE 1.

Number referred to hospital and for radiological and pathological investigations during 1951.

Disposal	No.	% Practice
Referred to hospital	307	6·9
Referred for radiological investigation	240	5·4
Referred for pathological investigation.. ..	220	4·9

Amount of Work Done in 1951.

1951 was an exceptional year in having a severe influenza epidemic in January and February. The total number of visits and surgery attendances during the year were :—

Surgery Attendances.. ..	11,846
Visits	2,758
Total	14,604

Knowing the number at risk to be 4,456 the average number of attendances per person per year in 1951 was 3·28.

The figure for 1949 and 1950 respectively, was 3·7 and 3·8. This average figure of 3·5 over the past three years is lower than that quoted by other observers (Bradford Hill, McGregor and Social Survey) who record a figure of 5 attendances per person per year.

This volume of work was found to be influenced by sex, age, season and even day of the week.

Sex.

Females outnumbered males in ratio of 5: 4 in frequency of medical attendances (Table 2). (There were 2,150 males and 2,366 females in the practice.)

TABLE 2.

Number of Attendances and their Sex Distribution.

Sex	No. Surgery Attendances	No. Visits	Total
Male ..	5,869	1,228	6,617
Female ..	6,457	1,530	7,987

Age.

Collected records show that the healthiest age group was the second decade and those who needed most medical attention were the over 70's (Table 3).

TABLE 3.

Number of Attendances per Person per Year in Age Groups.

Age Group in Years	0–4	5–9	10–19	20–29	30–39	40–49	50–59	60–69	70–79	80+
No. attendances per person per year ..	3·7	3·3	2·4	2·8	2·8	2·8	3·7	4·1	7·0	7·7

Season.

As might be expected, there was a seasonal variation in the volume of work, a peak being noted in January—February, June, and October—November.

Day of Week.

Monday was uniformly the busiest day, and this was followed by Friday and Tuesday.

Individual Attendances.

3,373 separate individuals, out of 4,456 at risk, were seen in 1951. This means that 3 out of 4 (75%) of the community under consideration sought medical advice. This is a surprisingly high proportion. 2,700 were seen on 5 or fewer occasions, but one patient was seen 61 times !

Incidence of Disease Groups.

In order that records could be easily kept, diseases were classified in certain groups and specific conditions were not considered. The disease groups were rheumatic, digestive, cardiovascular, central nervous, respiratory, upper respiratory infections, specific fevers, orthopædic, pregnancy, gynæcological, skin, neuroses, ear nose and throat, eye, varicose veins, accidents, vaccinations and immunisations, rectal, dental and a miscellaneous group.

Results from recording the incidence of these groups during 1951 reveal four orders of frequency :

A. (Over 1,000 attendances or over 7% of total.) In this most common group were respiratory, digestive, skin, cardiovascular disorders, the neuroses and upper respiratory infections.

B. (Between 500–1,000 yearly attendances.) Here are found the specific fevers, rheumatic disorders and diseases of the central nervous system and ear nose and throat.

C. (Between 350 and 500 yearly attendances.) Included in this group were gynæcological, ophthalmic and genito-urinary upsets, accidents, and attendances in connection with pregnancy.

D. (Less than 350 yearly attendances.) The smallest groups in frequency were disorders of varicose veins, rectum and teeth and attendances for vaccination and immunisation.

The variation in the incidence of these disease groups with age and sex is particularly interesting.

AGE.

Two forms of variation with age were found.

(i) *Where the incidence rises with age.*

This was noted in cardiovascular and central nervous system disorders and in digestive, ophthalmic, genito-urinary, rheumatic, respiratory and varicose vein groups. A typical histogram is shown for respiratory disorders, where a peak in the 5–10 year olds should be noted. (Fig. 1.)

(ii) *Where incidence does not rise with age.*

In the *upper respiratory infection group* which includes the common coughs and colds and sore throats, the maximal incidence is in the lower age groups, falling with age. (Fig. 2.) In general practice one of the commonest syndromes encountered is the " catarrhal chill " with recurring colds and coughs. This condition is rarely seen after the age of 12 and this is in keeping with the findings of the incidence of this group. The reasons for this are not quite clear. It may be that this catarrhal phase is in fact a normal phase in development, or it may be that a process of natural active immunisation is taking place or it may be that adults and adolescents do not consult a doctor so readily for these symptoms. It must be added that the operation of tonsillectomy and adenoidectomy which is commonly advised for this condition does not appear to affect its course.

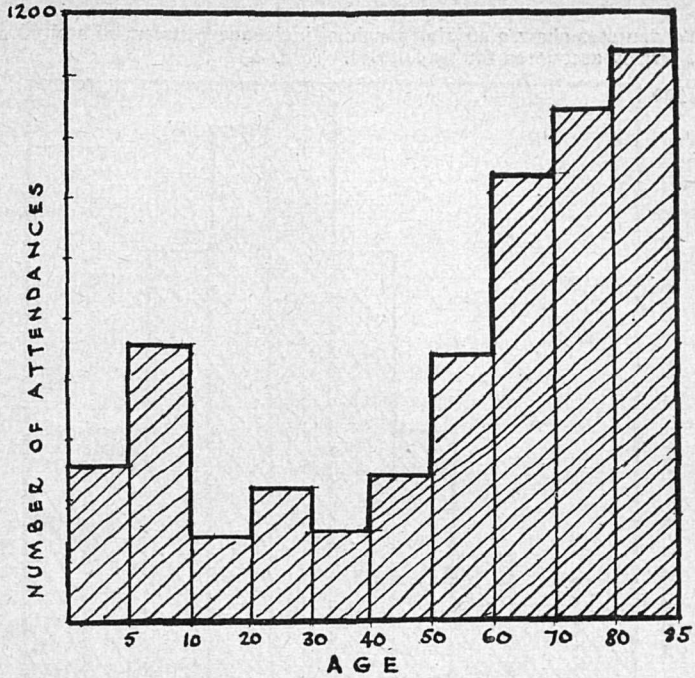

FIG. 1. Histogram showing incidence of respiratory disorders at various ages, per 1000 at risk.

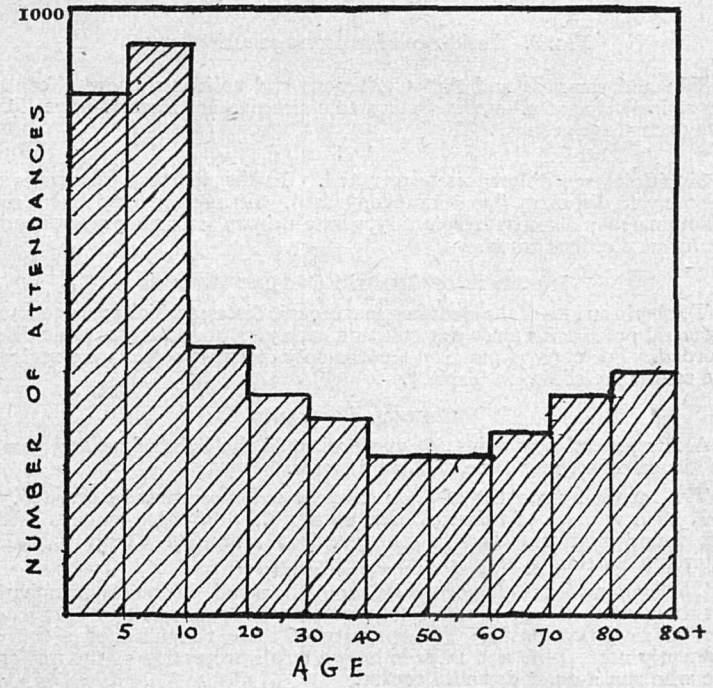

FIG. 2. Incidence of upper respiratory infections at various ages.

The neuroses show a striking maximal incidence between 30 and 60 and this is largely accounted for by females. (Fig. 3.)

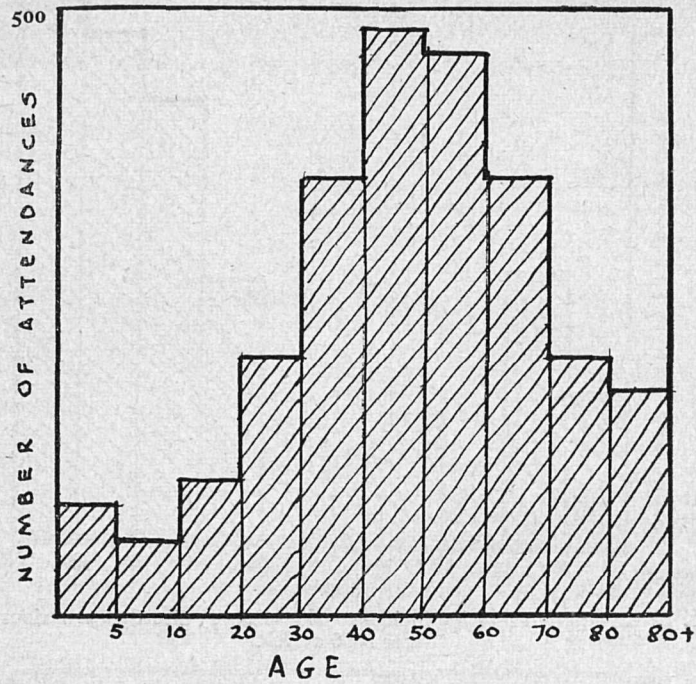

FIG. 3. Incidence of neuroses at various ages.

Skin and ear nose and throat affections and accidents show a constant rate of incidence at all ages. Orthopædic ailments are most common in the young active age groups.

SEX

Significant sex differences were noted. In the neuroses, rheumatic and varicose vein disorders, females predominated. To a less marked extent males predominated in digestive, respiratory, genito-urinary and orthopædic disorders, and in the accident group.

INCIDENCE OF SPECIFIC ORGANIC DISEASES

To obtain an idea of the most frequent organic diseases which are encountered in general practice a survey was taken on each patient and any organic disease recorded. For obvious practical reasons only certain diseases were reviewed. The results are shown in Table 4.

GENERAL COMMENTS

A few general comments are appropriate in the light of general practice experience concerning some of these diseases.

The increasing number of *acute coronary occlusions* must be stressed. In 1951, 29 new cases of this condition occurred. 8 of these patients died, 6 were found dead and had had no previous symptoms. Only 4 patients required admission to hospital and 2 of these died.

The high incidence of *hypertension* should be noted. It must be emphasised that the natural history of this condition is at variance with that described in most medical text books. The majority of these patients lead a full and apparently normal life and there is only a small proportion of the malignant type who run a rapid downhill course.

TABLE 4

Incidence of certain diseases, their frequency per 1,000 and sex distribution.

Disease	No. in practice	Sex Incidence	No. per 1,000	No. per 1,000 (Social Survey results)	Remarks
Hypertension . .	58	M. 16 F. 42	12·9	13·5	
Coronary Artery Disease . .	29	M. 22 F. 7	7·0	1·1	
Valvular Disease of the Heart	18	M. 11 F. 7	4·0	2·6	
Peptic Ulcers . .	55		12·3	15·3 (for London)	D.U. M. 39 F. 6 G.U. M. 6 F. 4
Neoplasms (malignant)	31	M. 19 F. 12	6·9		
Epilepsy . .	16	M. 8 F. 8	3·5	0·88	
Tuberculosis . .	40 Active 21	M. 21 F. 19	8·8 Active 4·2	Active 4·5 (for London)	Pulmonary 32 Other Sites 8
Diabetes Mellitus	10	M. 7 F. 3	2·3	2·35	New cases in Year = 3
Organic Neurological Diseases . .	18	M. 8 F. 10	4		Parkinsonism 4 Disseminated Sclerosis 4
Severe Disc Lesions . .	30	M. 18 F. 12	6·7	4·8 'Sciaticas'	
Pneumonias . .	66	M. 37 F. 29	12·5		
Chronic Chests	45	M. 25 F. 20	10·0	31·0	
Rheumatoid & Osteoarthritis	14	M. 5 F. 9	3·1	4·3	
Pernicious Anæmia . .	9	M. 5 F. 4	2·0	1·4	New cases in year = 3

From this table it can be seen that the most common specific organic diseases which were encountered in this practice in 1951 were—*hypertension* and its complications, *peptic ulcers* and *lung infections.*

Active *tuberculosis* is found chiefly in young adults between 15 and 30, and 10 new cases were diagnosed in this practice in the past year with the assistance of the local laboratory and X-ray department.

The large number of *pneumonias* is partly explained by the influenza epidemic in which 32 cases were diagnosed as pneumonia (Fry, 1951). Lobar pneumonia is a rare disease in present-day general practice. There is, however, a common pneumonic infection which is not described in textbooks and which follows a characteristic course, being acute in onset with little constitutional upset and with physical signs consisting of localised inspiratory rales with diminished air entry.

Chronic bronchitis is frequent in the older age groups and is difficult to treat satisfactorily.

Another syndrome which is becoming increasingly common at present is the so-called *prolapsed intervertebral disc.* 30 new cases were seen in 1951, all these being of a severe form which incapacitated the victim for at least 2 weeks.

As a reminder that a general practitioner must always be alert is the fact that 3 new cases of *diabetes mellitus* and 3 of *pernicious anæmia* were diagnosed in 1951.

Discussion

An attempt has been made to illustrate the work of a general practitioner with the aid of some facts and figures obtained during 1951. Since the majority of medical students eventually become general practitioners it is felt that some form of introduction to this branch of medicine should be made during their undergraduate days. Admittedly the curriculum is a full one, but it would probably be more beneficial to have some introduction to general practice than to spend those long hours in the theatre as a spectator.

It would also enable future consultants to get a small insight into general practice even though they never intend to practice in that sphere. This kind of instruction might take two forms :

(i) A course of lectures by an experienced general practitioner.

(ii) A period of clerkship to a general practitioner.

By these means the student would learn of the type of work, both clinical and administrative, which is involved and he might also learn a little of that very important part of medicine—dealing with human beings.

General practice offers a great deal of interest and pleasure to all who enter it, and there is tremendous scope for research in, as yet untouched, fields.

Summary

1. Two out of three medical students enter general practice. No instruction is given to undergraduates in this branch of medicine. It is suggested that some such teaching be given to students.

2. The actual volume of work averages 3·5 attendances per person per year. The variation of this volume of work with age and sex is noted.

3. The most frequent presenting disease groups were digestive, cardio-vascular, skin, neuroses, respiratory disorders and upper respiratory infections. The influence of age and sex on these groups is discussed.

4. The common specific organic conditions encountered in general practice were hypertension, peptic ulcers and lung infections.

Bibliography

Fry, John (1951). *Brit. Med J.*, ii, 1374.
Hill, Bradford (1951). *J. Roy. Statistics Soc.*, **114**, Pt. J, 1.
McGregor, R. M. (150). *Edin. Med. J.*, **57**, 433.

Sickness in the Population of England and Wales in 1944–7.
Percy Stocks. *Studies on Medical and Population Subjects.*
No. 2 *General Register Office* (1949) *London.*

Religion and Healing

By W. DENYS GIDDEY, B.A.,

Resident Chaplain to Guy's Hospital

IT is fitting that the journal of a hospital with a motto taken directly from the New Testament should draw attention to the importance of co-operation between doctor and priest in their ministry to the sick. The observations made on this subject in " Passim " of July 26th call for further comment.

As the physician of today reviews the history of the association of religion and the healing art down the ages, he may perhaps legitimately feel as thankful for the emancipation of his profession from the religious practitioner's as the surgeon may be of his from the surgeon-barber's. With the emergence of medicine as an independent art free from the superstition and confusion characteristic of the Middle Ages, the dawn of modern medical practice was upon the horizon. By the mid-nineteenth century, with the impact and influence of the new scientific outlook, it seemed as though the divorce between religion and medicine was complete. They appeared to represent two entirely different approaches to a subject which both had in common—man himself.

Nevertheless, medical practice had received into itself two important influences from Christianity. The first was the acceptance of that doctrine of man as a unity, body, mind and soul, which was the teaching of Christ Himself. If this view of man had been, in some sense, taught centuries before by the Greek philosophers, it was undoubtedly given a fresh and dramatic statement by Jesus. Again and again in His ministry He demonstrated that God's will for man was *wholeness*. In the face of unremitting orthodox Jewish tradition and teaching, He insisted that God could not be the author of physical or mental affliction. He was prepared to go to extreme limits to show that God's love and compassion for the sick was greater than the traditions of contemporary religious teaching. Jesus taught the supreme value of the individual in the sight of his Maker, and He demanded that people should be treated as persons with a glorious and immortal destiny in the sight of God. All His healing works proclaim that health of body and mind cannot be considered out of relation to health and peace of soul or spirit. He taught that man's life is infinitely more than physical.

As Dr. Leslie Weatherhead points out in his excellent work *Psychology, Religion and Healing*, it is significant that the words " health ", " hale ", " whole " and " holiness " all have a common origin. This is no accident. This Christian teaching of man has inspired and guided the work of the Church through the ages in her care for the sick—in spite of the ignorances and sins of Christian individuals. It has also deeply influenced medical practice throughout the world.

The second Christian influence upon the practice and history of medicine follows logically from the first. It is that of an ethical approach to the patient. The Hippocratic oath has been widely and generally interpreted in the light of the Christian doctrine of man which has for so many centuries been the heritage of western civilisation. Thus, in spite of the apparent divorce between religion and healing which was so evident a century or so ago, Christianity has been a formative and creative factor in medical practice. As we look at the world today and see many influences at work which threaten to annihilate or degrade man, we can agree that the religious influence in this spiritual sphere has been of signal and quite incalculable importance.

The position of religion *vis-à-vis* science today, however, is rapidly changing. The controversies which raged in the days of Darwin belong to an age long past. It is significant that an increasing number of the world's leading scientists, especially physicists, are thinking in terms of cosmologies in which the place of the spiritual is dominant. We are beginning to realize that neither the telescope nor the microscope can reveal the whole truth about

the universe. Metaphysics and religion must take us beyond merely philosophical speculation. In the medical sphere also, it would appear that many doctors are fully aware of the inadequacy of thinking of man as just a physiological organism whose structure and personality can be stated simply in terms of graphs, charts or chemical reactions—important as these are for research purposes.

The emergence of psychology has no doubt had a profound effect upon this situation. The development of psychological and social, and more recently of psychosomatic medicine has served in some measure to rehabilitate the approach to the whole man in his sickness which has always been inherent in Christian thinking. The growing recognition by contemporary medicine that in many common illnesses there are often underlying mental and spiritual conditions, tensions, conflicts, fears and other negative influences which play an important part in the onset and progress of physical disease is in part the fruit of this new approach by doctors themselves. Nor, obviously, is the question settled merely by categorising certain illnesses as functional, others as organic. That is simply to come to the threshold of the problem of why certain diseases seem to be physiogenic and others psychogenic and to discover that the relationship between such hypothetical categories has not been defined. This very problem was stated almost in these terms at a London conference in July of this year when a congress of leading dermatologists attributed many skin diseases to mental conditions and a disorder of the relationship between mind and body.

During the past fifty years the Church has given much attention to the consideration of where her responsibilities to the sick lie, both in respect of the clear teaching of Christ and of the recent discoveries and new orientation in medicine. Theologians and Christian doctors together have sought to understand the relationship of spiritual ministration to the sick and that which should exist between doctor and priest. This has resulted in the revival of a more effective ministry through prayer and sacrament, especially considering the place of the sacraments of Holy Communion, Confession and Holy Unction. Guilds have been set up to study and promote the Church's work among the sick. A by-product, perhaps almost inevitable in a " popular " development at a time when lay interest in healing methods is increasing, has been the appearance of freak movements, such as " Christian-Science " and emotional " faith-healing ". The medical profession has no monopoly of quacks !

The development of the Church's ministry to the sick in co-operation with the medical profession owes much to the far-seeing wisdom of the late Archbishop Temple. He believed that the subject of healing should be approached from a three-fold standpoint : body, mind and spirit—and that successful treatment in one was not possible without consideration of the others. He envisaged complete co-operation between the pastoral and medical ministries of healing, supported by laymen through their intercession for the sick. In 1944, Archbishop Temple called together a number of leading doctors and clergy and set up a development committee to unite informed and convinced Christians in common thought and action. Official representatives were subsequently appointed by the Free Churches, and in 1946 the committee became the Churches' Council of Healing. The President is the Archbishop of Canterbury. In 1947 the British Medical Association gave approval to the work, nominating three of their representatives to serve with the Council and issuing an official statement in support of the movement.

This B.M.A. statement was published in the *British Medical Journal Supplement* (vol. ii, p. 112) and because it is perhaps not as well-known among doctors as it might be, it is well here to quote from it. " The Council of the B.M.A. is of opinion that there is no ethical reason to prevent medical practitioners from co-operating with clergy in all cases and more especially those in which the doctor in charge of the patient thinks that religious ministrations will conduce to health and peace of mind or lead to recovery. Such co-operation is often necessary and desirable and would help to prevent abuses which have arisen through the activities of irresponsible and unqualified persons . . . it would seem desirable that the whole field of medical practice

in relation to the work of the Church should be explored. Moral aspects in the cause, treatment and prevention of disease cannot be overlooked, and in this field also it is desirable that there should be fuller co-operation. Medicine and the Church working together should encourage a dynamic philosophy of health which would enable every citizen to find a way of life based on moral principle and on a sound knowledge of the factors which promote health and well-being. Health is more than a physical problem, and the patient's attitude both to illness and other problems is an important factor in his recovery and adjustment to life. Negative forces such as fear, resentment, jealousy, indulgence and carelessness play no small part in the level of both personal and national health. For these reasons we welcome opportunities for discussion and co-operation in the future between qualified medical practitioners and all who have a concern for the religious needs of their patients."

The implementation of this far-sighted policy is still ahead of us ; a task for our and succeeding generations of clergy and medical practitioners. There are yet many barriers of misunderstanding, mistrust and prejudice to be overcome on both sides. The physician will need to be convinced, for example, that the priest is not trying to supercede the doctor but that he is a physician of the soul, seeking to bring peace and healing to the spirit of man through spiritual means. The psychiatrist will feel strongly the necessity of clarifying many difficult issues such as, for example, the relationship between analysis and confession, " the couch " and " the box ". It cannot be expected that these and many other outstanding difficulties can be overcome rapidly and successfully simply because some are agreed upon first basic principles. It calls from the Church and the medical profession alike a fresh approach to many of the problems they face in common. It will need courage and above all humility. Religion and healing had a common origin in their service of God and man. There appears to be in both the Church and the medical profession today evidence of a developing and informed conviction that full health results from healing not only of body and mind, but also of spirit. It is from this standpoint that religion and medicine may rediscover their true relationship one to the other.

Correspondence

Presentation to Sir William Kelsey Fry

SIR,—I would be very grateful if you would allow me the space to thank the Guy's men who have so honoured me by presenting me with my portrait.

My feelings are difficult to express ; I only know that I am most proud to feel that I have so many friends from my own Hospital. Not knowing their names, I am unable to thank them individually, as I would have wished, but I hope they will accept these inadequate thanks for what I consider to be a very great honour.

Yours, etc.,

W. KELSEY FRY.

MISSING BOOKS

The following books are missing from the Surgical Department Library :—

Principles of Pathology. WILLIS.

Plain Words. GOWERS.

After Treatment. ATKINS.

Annals of the Royal College of Surgeons, Volume 8.

Will the borrowers kindly return these volumes to the Library without delay.

Reviews

Guy's Hospital Reports. Vol. 101. Part 2.

The current number of the *Guy's Hospital Reports* contains accounts of investigations on practical clinical questions.

Dr. George Scott's article gives a review of the literature on the relationship between dental extraction and lung infection. This is followed by an account of his own investigations on the subject. The procedure of dental extraction under local and general anæsthesia was studied in order to determine what factors permit inhalation of septic material during operation, and how it may be prevented. Radio-opaque oil was trickled into the mouth during the operation, and whether inhalation of this material had occurred was judged by its demonstration in subsequent radiographs of the lungs. In 25 of 100 patients this proved to have occurred. A further 150 patients who were considered possibly to have inhaled septic material from the mouth during dental extraction, were followed up. One of these showed radiographic evidence of lung infection which produced symptoms about a fortnight after the dental extraction. The infection, however, was mild and quickly recovered.

The investigation shows the real danger of inhalations of septic material during dental extraction in the sitting position. The following practical suggestions to reduce its incidence are made : (1) that multiple extractions should be performed on a table with head and thorax lowered ; (2) that in the case of back teeth the number of extractions should be kept to a minimum ; (3) that particular attention should be paid to the efficiency of the pack.

Mr. Robert Horton has studied the anatomy of the arterial vessels of the greater curvature of the stomach. The simple arterial arcade which is usually described, is interrupted between the areas of supply of the right and left gastro-epiploic arteries leaving a characteristic bald area there. At its termination the left gastro-epiploic artery provides the major arterial supply to the greater omentum.

It is important that a physician should realize the scope and limitations of any special investigation which he requests. Dr. Hills and Dr. John Trounce provide a valuable service in their investigation of the value of the cholecystogram. They report findings in 100 supposed normal subjects, and on 79 patients in whom gall stones were found at subsequent operation and six patients found to have cholecystitis without stone. Straight radiographs of the gall bladder are of limited use in excluding disease and by this method stones were demonstrated in only 44% of patients in whom they were present. On the other hand an abnormal cholecystogram is very strong evidence of gall bladder disease, and it is rare for a healthy subject to fail to concentrate the medium unless the amount of pheniodol taken has been too small.

Dr. Mant Dr. John Trounce and Dr. David Vulliamy describe two cases of death in early childhood in which the coronary vessels were abnormal. Dr. Batty Shaw and Dr. T. Finnegan describe a patient with an unusual history of attacks of angioneurotic œdema followed by unconsciousness. No attacks were observed but the electro-encephalogram showed an abnormal rhythm which was augmented by the water pitressin test. Dr. J. M. Holmes gives an account of the investigation and treatment of primary uterine inertia.

H.E.H.

Design of the Natural Dentition. By H. H. BOYLE. 1st Edition. Staples Press. *Price* 21*s.*

This latest publication of Horace Boyle's presents three of his theses in book form, and will be appreciated by those who have followed his earlier works. Boyle's theories on the True Dental Centre, the dental curves, the function of the temporo-mandibular joint, and the condylar path are all here. There is a long chapter on the design in individual teeth, and, for some inexplicable reason, a very brief mention of fractures and splints.

The printing is excellent, and the illustrations leave nothing to be desired.

But—one is reminded very forcibly of Mr. Polly. " Sesquippledan verboojuice " follows on " Eloquent Rapsodooce ", and it has proved very difficult reading. This is not a book that will appeal to the undergraduate.

R.D.G.G.

Sport

ROWING

The following represented the Hospital at Hereford Regatta at Whitsun :—

Junior IV's

Bow : A. B. Aistrop
R. C. Francis
P. W. Hayward
Stroke : I. McColl
Cox : M. W. Cooksey.

Maiden Sculls
I. McColl

The Four was beaten by Stratford-on-Avon Boat Club, and I. McColl reached the semi-finals of his event.

K. A. Hillard represented Guy's at Henley Town Regatta and also at Maidenhead in the *Maiden Sculls*. He reached the semi-finals. I. McColl, sculling at Egham Regatta, was beaten in the final of his event.

Hospital Information, etc.

APPOINTMENTS VACANT

Applications are invited for the following Fellowships and Studentships. Applications should be made not later than **15th September, 1952,** on a form to be obtained from the Dean, Guy's Hospital Medical School, London Bridge, S.E.1.

The Adrian Stokes Memorial Fellowship.

The Fellowship is open to qualified Medical Practitioners or Graduates in Science, in Pathology or Bacteriology. Applicants must not be more than 30 years of age and must be anxious to carry out further study in Pathology or Bacteriology in any of their branches. The Fellow is required to carry out this study during a period of not less than six calendar months in his year of tenure, at a University, School or Hospital or other institution, subject to the approval of the School Council, except the School in which he has received his medical or scientific education. The Fellowship is of the value of £232.

The Grenville Studentship.

The Grenville Student, who is required to devote himself to original investigation in connection with the subject of Cancer, holds the appointment for a period of two years, renewable annually for a further period of three years, making five years in all. The Studentship is of the value of approximately £27 per annum.

The Beaney Scholarship for Materia Medica.

Candidates for the Scholarship must have received part at least of their medical education at Guy's Hospital Medical School. The object of the Scholarship is to advance knowledge of Materia Medica (including Pharmacy, Pharmacology and Therapeutics) by supplying the Scholar with the means of carrying on original investigation in these subjects. The Scholar holds the Scholarship for three years and is eligible for re-election. The Scholarship is of the value of approximately £86 per annum.

UNIVERSITY OF LONDON
RECOGNITION OF TEACHERS

The following Teachers have been recognised as Teachers of the University and assigned to the Faculties indicated :—

Faculty of Medicine

Dr. I. A. B. Cathie, M.D., as Teacher of Pathology at the Institute of Child Health.

Mr. P. W. Clarkson, F.R.C.S., as a Teacher of Surgery at Guy's Hospital Medical School.

ROYAL COLLEGE OF PHYSICIANS OF LONDON
CENSOR

Dr. A. H. Douthwaite has been elected a Censor.

EXAMINERS

Materia Medica and Pharmacology : Dr. W. N. Mann, Prof. J. H. Burn, Prof. J. M. Robson.

Physiology : Prof. W. R. Spurrell.

Anatomy : Prof. James Whillis.

Medical Anatomy and Principles and Practice of Medicine : Dr. A. C. Hampson.

Midwifery and Diseases Peculiar to Women : Mr. Frank Cook.

Physical Medicine, Part I : Prof. G. Stead.

Pathology : Prof. G. Payling Wright.

Panel of Examiners for the Membership Examination : Dr. Maurice Shaw, Dr. E. R. Boland.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

F.D.S.

July, 1952

P. C. Grummitt

ROYAL COLLEGE OF PHYSICIANS OF LONDON

M.R.C.P.

June, 1952

W. M. Dixon T. McKeown W. Van't Hoff

APPOINTMENT

W. B. D. Maile, M.D., M.R.C.P., Neuro-radiological Registrar, Atkinson Morley Hospital, Wimbledon.

PASS LIST
SOCIETY OF APOTHECARIES OF LONDON

Final Examination

July, 1952

Pathology, Bacteriology and Forensic Medicine

*I. A. W. Scott *Joyce D. Waye

Medicine

J. D. Pryce E. Mck. Sycamore

Midwifery

M. C. Batcheldor J. V. Parson
G. L. Feldmar Helen L. M. Partridge
J. W. Jordan J. H. Peters
E. R. Lester S. C. C. Scott
J. S. Norell *Joyce D. Waye
Nancy M. Page

* Have completed the examination.

UNIVERSITY OF LONDON

Third (B.D.S.) Examination in Dental Surgery

July, 1952

Pass

R. G. K. Burston S. Shindler
D. O. Wilkes

Supplementary Pass List

The following students have passed in Group I

E. J. Artes
C. H. Dexter
A. Gibson
G. L. Hunter
D. H. MacLeod
G. Maggs
R. H. Pownall
N. H. Reeves
R. W. Willcocks

Second Examination in Dental Surgery : Part I

July, 1952

A. S. Atkinson
B. W. G. McG. Beeching
W. M. Boyle
J. E. A. Chiappe
N. R. Cooke
N. L. Crabtree
D. F. Crouch
M. R. Davison
A. R. Grice
J. R. Harris
D. M. Hobbs
B. Holmes
P. Jones
Shirley M. Kanaar
R. F. King
C. J. Lambert
W. A. Miller
D. S. Noble
J. W. Osborn
C. E. Rees
M. B. Rothschild
H. R. Singer
R. D. G. Stevens
A. D. Wheeler
J. Wolfle

M.D.

July, 1952

Branch I. Medicine

G. W. Scott

Branch II. Pathology

H. Greenburgh

Branch IV. Midwifery and Diseases of Women

G. M. Evans G. T. Hammond

Branch V. Hygiene

M. D. Warren

Second Examination in Dental Surgery : Part II

July, 1952

T. P. Bass
C. P. Briggs
I. M. Briggs
I. Caldwell
D. A. Coppock
P. L. Cumming
P. Degens
P. H. Goddard
M. S. E. Gould
H. D. A. Hope
H. C. F. Hudson
J. N. James
D. A. Lambert
J. D. Lane
J. S. Lee
P. A. Long
P. W. Pollock
B. H. Pritchard
D. J. Veale
P. J. Wege
P. E. Williams

Special First Examination for Medical Degrees

June, 1952

M. V. Appa Rao
D. L. Brooke Jones
P. G. C. Calverley
D. M. Carpenter
Gloria Cavalot
R. E. Clayton-Jones
S. A. R. Cooke
Barbara C. Dean
J. R. Fieldhouse
P. S. Firth
G. H. Forman
R. G. G. Gain
N. M. Hepburn
A. B. Hewitt
G. R. Hill
M. Hopwood
R. G. James
D. I. Joiner
D. D. Jones
N. J. Knight
Lily G. Lopez
I. McColl
C. L. Macpherson
C. Maggs
C. J. Meryon
C. K. Millman
B. R. P. Murray
P. M. O'Driscoll
J. A. A. Ranson
A. P. Redmond
R. W. K. Reeves
W. A. A. Renner
B. A. Roberts
D. G. Rosair
T. Sherwood
D. C. J. Stares
D. A. H. Thomas
R. R. Watkin
P. B. Whatmore
W. Whitrow
D. J. Wood
I. I. Zayid

The following Higher School and General Certificate of Education Candidates have qualified for exemption from the First Medical

J. Amherst-Clark
R. J. Andlaw
P. G. Benson
A. F. Broad
P. Brooke
R. Burman
R. M. Clark
J. A. I. T. Clement
M. J. Coucher
M. H. de Groot
Marion F. Fairfax
G. M. Huddleston
P. H. L. Jones
Patricia O. Lane
M. J. Lavine
I. Lewis
N. Lis
J. P. Lissenden
C. A. G. MacKenzie
C. E. Ribbons
D. S. Robertson
A. J. Sawyers
D. O. Smith
R. D. Smith
P. J. H. Snell
R. E. Turner
W. E. Watson
Susan M. Wilson

PAPERS BY GUY'S MEN

Allanby, K. D. The Pre-operative Assessment of Patients before Prostatectomy. *Arch. Middlesex Hosp.*, 1952, **2**, 162.

Brock, R. C. Valvotomy in Pregnancy. *Proc. R. Soc. Med.*, 1952, **45**, 538.

Crisp, E. J. Conservative Treatment of the Lumbar Disc Syndrome (Abridged). *Proc. R. Soc. Med.*, 1952, **45**, 541.

Fry, John. A Year of General Practice : Study in Morbidity. *Brit. med. J.*, 1952, ii, 249.

Howitt, Frank D. The Evolution of Physical Medicine (Samuel Hyde Memorial Lecture). *Proc. R. Soc. Med.*, 1952, **45**, 548.

Ogilvie, Sir Heneage. Surgery of Peptic Ulceration. *Brit. med. J.*, 1952, ii, 299.

CHANGES OF ADDRESS

H. A. Ripman, F.R.C.S., M.R.C.O.G., 11, Museum Street, Ipswich, Suffolk (Consulting Room).

J. D. B. Perkins, L.M.S.S.A., S.M.O., King Edward VIII Hospital, Congella, Durban, S. Africa.

BIRTHS

BREESE.—On 25th July, 1952, at Holbeach Hospital, Lincs., to Anne, wife of James Edward Breese, M.R.C.S., L.R.C.P.—a son (Jeremy Charles).

GUERRIER.—On 19th July, 1952, at Nuffield House, to Shelagh (née Streatfield), wife of H. P. Guerrier, F.R.C.S.—a brother for Timothy and Philip (Peter Charles).

HOOPER.—On 21st July, 1952, at St. Mary's Hospital, Paddington, to Jill Marie (née Petty), wife of John Morton Douglas Hooper—a daughter (Susan Mary).

HOYLE.—On 8th August, 1952, at Beckenham Maternity Hospital, to Mary Alexandra (née Pryor), wife of H. V. Hoyle—a son.

MORRANT.—On 2nd July, 1952, at Mason's Hill, Bromley, Kent, to Molly (née Borthwick), wife of Guy Morrant, B.D.S.—a daughter (Mary Isobel), a sister for Lois.

TAYLOR.—On 8th August, 1952, at 31, Pickhurst Lane, Hayes, Kent, to Susan (née Goldschmidt), S.R.N., wife of Brian H Taylor, L.D.S. R.C.S.Eng.— a sister (Sheila Gillian) for Michael Francis.

MARRIAGE

BUTCHER—BORDER.—On 9th August, 1952, at West Wickham, Kent, Anthony Sidney Fairbank Butcher, M.B., B.Chir., to Peggy Elizabeth Border, S.R.N.

DEATH

CHASE.—On 6th August, 1952, at "Oakwood", Brampton, Cumberland, Robert Godwin Chase, M.B., B.Chir.(Cantab.), of 68, Victoria Road, Headingley, Leeds.

EDS. { P.A.Z. / E.E.D.T.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1673 *6th September* 1952 *One Shilling*

PASSIM

THE memories of their hospital which old Guy's men and women possess are bound to be of many kinds. Each one, however, will probably have formed some especially marked impression. For some it may be the buildings themselves. For others it may be their fellow students or nurses or colleagues. Others again may find that it is the personality of some of the staff of their day which they remember most clearly. If one reads the records of Guy's in former days it is certainly this last which seems to have made the deepest impression.

One wonders what would impress a visitor from the past most about Guy's today—supposing some Wellsian machine were to bring back a man like Astley Cooper to live amongst us again for a few months. What would he find to be the greatest contrast between his own time and ours? He would be dazzled, fascinated, perhaps bewildered by the growth of his hospital. Modern equipment, new drugs, new surgical techniques might well leave him standing agape. He might feel lost amidst the very surroundings which his personality once dominated. Yet perhaps on recovering from his surprise it might be none of these which would impress him most. We should be surprised if he did not find the greatest change of all to be in the standard of nursing. Having had to commit his own patients to the care of women about whom one writer remarked, " Drunk, all of them, even the sisters " he would be envious indeed of our present staff and the nursing their patients receive.

It is sometimes said that as diseases such as typhoid fever and pneumonia become more and more easily treatable the need for skilled nursing becomes less and less. Yet so far from this being true there can never have been a time when good nursing can contribute so much towards a patient's cure. Most doctors would be only too ready to admit that over a wide range of conditions, especially in medical wards, the major part of treatment lies in rest and good nursing. Nor would the most skilled surgery achieve much without expert, careful and kindly nursing.

Tributes to Guy's nursing are often heard from patients. There are many unheard and not the least of these come from Guy's men working elsewhere. How often have we heard them say that the work is interesting and varied, but how much they miss Guy's nursing! It is just this which a visitor from history might return to tell his contemporaries about most enviously and it is this which may be the most vivid impression carried away by more than one old Guy's man . . . .

Dr. A. H. Douthwaite's appointment as Senior Censor of the Royal College of Physicians was not fully reported in our last issue. We extend to him our warmest congratulations.

We are very sorry to have to record the resignation of Dr. P. A. Zorab from the Editorship of the *Gazette* on his departure from the Hospital. Dr. Zorab joined the *Gazette* as Assistant Editor in September, 1949, and served in this capacity until May of this year when be became Editor—a term altogether of nearly three years. By the unanimous vote of the *Gazette* Committee, Mr. E. E. D. Tomlin, the present Assistant Editor, has been elected Editor, and Mr. R. D. Wilson elected to fill the vacant post of Assistant Editor.

Fits and Faints

By SIR CHARLES SYMONDS, K.B.E., C.B., D.M., F.R.C.P.

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WHEN I was invited to address you I had no idea what I was coming to. I thought my audience would be much the same as at my own hospital, some already qualified, and most having had quite a lot of clinical experience. Now it is not really very difficult to address an audience of that kind on a clinical subject, but when it comes to talking to a gathering like this of keen young men and women fresh from the lessons of their pre-clinical science, bristling with anatomical facts, and overflowing with the latest physiological theories, the boot is on the other foot. I mean what I say. I could not possibly pass your examinations in biochemistry, anatomy and physiology now.

The fact is that the practice of clinical medicine is still very largely empirical. There is a tremendous gap between pre-clinical and clinical study. The former is based upon mathematics, dissection and experiment. Clinical practice is based as far as possible upon scientific principles, and as knowledge advances becomes gradually more scientific, but there are vast areas unexplored, and when it comes to the daily problems of the bedside much of our job is educated guesswork. This does not mean that when you start your clinical work you must abandon the scientific attitude. Far from it. I would urge you to preserve it at all costs, to go on thinking logically and critically, and above all to be sceptical. But it does mean that when you come to deal with patients instead of test tubes you must acquire a new technique. It is a technique which is scientific, but belongs rather to the science of the field naturalist than the laboratory worker. You have got to make use of all your senses—eyes, ears, nose and touch anyway, singly and in combination, to observe departures from the normal structure and function of bodies, bodies in their parts and bodies as a whole. Thus you will learn to recognise patterns of abnormality, which gradually become fixed in your mind, so that, for example, the combination of a certain pale yellowish tinge in the face, together with a smooth and shiny tongue, will tell you almost without thinking that the patient has pernicious anæmia, or the combination of a monotonous voice and an expressionless stare that he has paralysis agitans. There are many diseases which declare themselves in a moment to the observer who has trained his senses to work for him to this end. The late Professor Ryle in his book "The Natural History of Disease", which I would warmly commend to you, has written beautifully of the intellectual pleasure and satisfaction to be obtained by this means.

But there is another aspect of clinical work which I think is much more difficult for the beginner, though in the end even more fascinating than pure observation, and that is the study of symptoms. It is difficult for several reasons. First there is the difficulty of language. The patient comes to you perhaps for pain. You are dependent upon his powers of expression for what you can learn about the quality, distribution and other features of his pain. You will find some patients who have hardly any words at all to describe their pain and others who have far too many. And there is a good deal of variation in the words used by different patients to describe the same pain. You have got to learn their language, and this is something you cannot get from books or teachers. You must learn it first hand from your patients.

A second difficulty is this. As a student of symptoms you want to question the patient in detail about the character and distribution of pain, its times of occurrence, its relation to various circumstances, when it began, and so on. Unless you do this you will get nowhere. But you will find that the average patient has very little interest in this procedure. He is indeed apt to be impatient with your enquiries for he is all the time thinking of something else, which to him is far more important. "I have a pain", he is saying to himself, "and what I am bothering about is not the answers to all these questions but

what the doctor is going to do to take my pain away." There is in fact a discord between doctor and patient at this stage of their acquaintance which is inevitable and natural, and must be recognised by both before any more profitable relationship can be established. Sympathy alone can bridge the gap. It is a very apt word in this connection. To understand a patient's symptoms you must literally suffer with him as far as you can. When he tells you that his pain is like toothache you should remember your last toothache, or if he says it is a cutting, or a throbbing, or a bursting or a burning pain, or a pain like a tight band round some part of him, you should draw upon your personal experience of such pain to help you to imagine just what he is suffering. Sympathy in its less literal sense—being sorry for the patient—is just as important. You will not obtain an accurate history of symptoms without it, but then if you are not sympathetic in this sense of the word you should not be a doctor at all.

There is a third difficulty often to be encountered. When you begin to cross-question the patient about his symptoms he may be ready enough to help you, but in a way quite different from that which you want. You want the facts, the site and times of the pain, the exact sequence in which the symptoms developed, and their setting. You are bent on collecting data and, following scientific method, will not embark on hypothesis till the data are complete. Not so the patient, whose idea of co-operation is often to tell you what he thinks is the cause of his symptoms. You ask him for instance to tell you where about in his abdomen his pain is, what sort of pain, how long it lasts, and what factors, if any, aggravate it. He answers : " Well, doctor, if you want to know I think it is all due to constipation." One must sometimes be a little ruthless with this kind of answer, but it is no good unless the bond of sympathy has first been established.

The study of symptoms is fascinating for various reasons. It is a splendid form of intellectual exercise, satisfying because the conclusions which you arrive at from your analysis can very often be tested at once by further examination or investigation. Having taken the history of a man's pains in his legs you will be able to say to yourself, " These are the symptoms of tabes dorsalis ", and then proceed by examination of the pupils and reflexes and, if necessary, the investigation of blood and spinal fluid, to establish or disprove your prediction. Or, having extracted the details of a dyspepsia, you will be able to see the duodenal ulcer first in your imagination, and then in the X-ray picture.

Again, symptoms are the earliest manifestations of disease, and their recognition at a time when there is no other evidence available may lead to a cure which might have been impossible later on. There is, I think, nothing more satisfying in medicine than a success of this kind, as, for example, when the patient's description of his own sensations, and nothing more, leads to the accurate diagnosis and localisation of a removable cerebral tumour.

Symptoms too are the representation in the patient's mind of disordered function, physiology gone wrong, and to be able to apply one's knowledge of normal physiology, and see in one's mind's eye the details of the labouring machine is both satisfying in itself, and of very great value in the treatment of symptoms.

However, I have talked long enough of generalities. I promised to address you about faints and fits. When I said that I could not pass any of the preclinical examinations in which you have been successful I might have added that in my own particular branch of medicine I hope that my knowledge of anatomy and physiology is not so dusty. By the time a man has become a specialist he has had to relearn a good deal of what he has forgotten of these subjects so far as they are of practical, clinical importance. And he will always be looking to his colleagues in the laboratory for more light upon many aspects of disordered function which are so far unintelligible. He must keep a watchful eye upon the growing points of physiology, especially if he is going to turn his own clinical experience to account. Therefore in the discussion of faints and fits I hope to meet you on your own ground.

The symptom common to faints and fits is brief loss of consciousness or, in a slight attack, only a disturbance of consciousness. In a faint the symptom is due to a temporary failure of the cerebral circulation as the result either of a fall of blood pressure or slowing of the heart beat. In a fit—and I mean by fit any kind of epileptic seizure—the loss of consciousness is due to paroxysmal disorder of function in the brain itself. The first cause is much more easily understood than the second. Consciousness is subserved by nerve cells which need oxygen for their work, and when the supply fails them they cease to function. Fainting from fall of blood pressure or cardiac slowing is sometimes due to simple and easily recognisable causes such as loss of blood or heart disease, but much more often it occurs from temporary and trivial causes. The commonest of these are maintenance of upright posture for an unusually long time, and emotional tension, especially fear. For example, at a parade for inoculations fainting is very common because the nervous individual by the time he sees the needle jabbed into the man in front of him has probably been standing in the line for a long while. This combination of conditions, therefore, is very favourable to fainting and has provided opportunities for observing just what happens in a faint.

I have already indicated that two mechanisms may be involved, fall of blood pressure and slowing of the heart beat. In fainting due to prolonged standing fall of blood pressure is the cause, and the fall, though rapid, is usually gradual. The first symptom then is dimness of vision, which is probably due to the fact that the retinal vessels, being exposed to the tension of the intra-ocular fluids, are more easily compressed when their internal pressure falls. The centres for postural tone fail next and the sufferer sways, then collapses, or falls with loss of consciousness. The observer notes extreme facial pallor. Function recovers rapidly as the result of the fall for the blood flow to the brain is no longer against gravity. As everyone knows, if there is enough warning loss of consciousness can be prevented if the sufferer sits down with his head between his knees. Sometimes, however, the fall of blood pressure is so abrupt that the patient falls with very little warning.

Now if we ask ourselves what is the primary cause of postural fainting the answer must be that it is a failure of the mechanism responsible for tonic vaso-constriction, in fact the nerve centres at the base of the brain. If then one person is more subject to postural fainting than others, this is presumably due to his nerve centres being less stable or more sensitive. The excessive liability to fainting is a nervous disorder. When fainting occurs from emotion I suspect that cardiac slowing is the usual cause. On the few occasions when I have had a chance of observing it I have found the pulse excessively slow. Again, the onset may be gradual or sudden, and the symptoms are much the same as when a fall of blood pressure is the cause, but the duration of the attack is apt to be longer, probably because the effect of a very slow heart rate is not so well compensated by the recumbent posture.

Faints, therefore, usually have an easily discernible cause, and a fairly constant pattern of warning ; postural faints occur only in the erect posture : emotional faints *may* occur in any posture but are again more likely to occur in the erect posture because of the gravity load. In both kinds of faint for obvious reasons cerebral function is affected as a whole, though retinal function is the first to fail. There may, however, be other symptoms. With loss of cerebral control lower centres may for the moment assert their activity. If the bladder happens to be full it may void its contents. Sweating and vomiting are symptoms probably due to the effect of anoxia upon the appropriate centres in the medulla. Another much more important symptom that may occur if cerebral anoxia is severe and prolonged is twitching of the muscles of the face, sometimes extending further to produce generalised convulsive movements. This was recorded in 7% of a series of 362 faints in blood donors analysed in a Medical Research Council Report. Now loss of consciousness and generalised convulsive movements are regarded as the classical symptoms of an epileptic fit, and it must therefore be conceded that a person who faints badly enough does have a fit. This is not surprising, for we know that cerebral anoxia from breathing a rarefied atmosphere will indeed cause these symptoms, the nerve cells passing into what we call an irritable state and discharging spontaneously

and at random. Though not surprising, the occurrence of these symptoms adds greatly to the practical difficulty of distinguishing between a faint and an epileptic seizure.

Epileptic attacks may, of course, occur as the result of damage to the brain by disease or injury. We then call the liability to attacks symptomatic. But far more often they occur without any such cause and then we speak of idiopathic epilepsy. What is it that happens in a fit ? Three-quarters of a century ago, as the result of nothing more than close clinical observation, Hughlings Jackson concluded that epileptic attacks were the expression of " occasional, sudden, excessive, rapid and local discharges of grey matter ". This concept was accepted by neurologists in the absence of any physiological proof and served as their working hypothesis for fifty years before the physiologists supplied the evidence—a splendid example of what can be achieved by clinical observation and reasoning. The electroencephalograph has completely confirmed Jackson's theory.

I am not going to spend time on discussing the electroencephalograph, however, for I want to continue with the clinical problem, and would stress in Jackson's definition of epilepsy the word " local ". In a faint the disorder of cerebral function involves the brain as a whole ; in a fit it begins somewhere, and it may be almost anywhere, *in* the brain. This provides us with the most important of all means of clinical distinction between faint and fit. Although the cerebral cortex normally functions as a whole there is what we call localisation of function, areas which are especially concerned with particular functions. This we know both from observations in disease, and the experimental results of electrical stimulation. The latter method is of particular value in that it can excite the cells of a small area to a state of epileptic discharge, and in the hands of Penfield and his colleagues it has been used to explore the cortex of conscious human subjects in the course of operations performed under local anæsthesia. It has thus been possible to map out certain areas of the cortex in terms not only of the movements that may be elicited, but the sensations that may be experienced. These may be sensations of a simple kind, tingling, numbness or a sensation of movement in some part of the body —when the post-central gyrus is stimulated ; visceral sensations, of which the commonest is a queer feeling in the pit of the stomach passing upwards towards the head—the so-called epigastric aura ; or sensations which belong to the special senses—flashes of light, buzzing noises, queer smells or tastes, or vertigo.

But there may be much more complex sensations, visions, for example, or tunes, or a distortion of normal perception so that objects appear small, distant or strange. One of these more complex sensations is of historical interest because it was perfectly described by Hughlings Jackson in 1888 and correctly localised by him to the anterior part of the temporal lobe. He called it the dreamy state. His paper on the subject is a model for the clinical research worker. He had collected notes of 50 cases of this variety of epilepsy before he wrote upon it, and recorded the patients' sensations in their own words. The dreamy state may take the form of an actual vision of some remembered or half remembered scene or persons, or simply reminiscence. One of Jackson's patients used these words : " I began to think of things years gone by ", " things intermixed with what had occurred recently ", " peculiar sensations passing through my memory and appearing before my eyes ". The subject is aware that this is an abnormal experience. He knows the vision is a hallucination. There is always in the experience that mixture of familiarity and strangeness which belongs to dreams.

Jackson observed that this dreamy state was often accompanied or preceded by a hallucination of taste or smell, unpleasant, always the same, but indescribable, and that in all cases with such attacks in which organic disease could be found it involved one or other uncinate lobe. They came to be known, therefore, as uncinate attacks. Penfield's observations have confirmed this. He has been able to produce the dreamy state by stimulation of the anterior part of either temporal lobe and nowhere else.

Here is his account of what occurred in one patient who was subject to momentary attacks in which she seemed to be in a park and saw a boy there and once a girl. She thought the circumstances were always the same and always familiar. Some results of [electrical stimulation of the temporal cortex were as follows. At one point stimulation caused her to say that she felt as though she might have an attack. When asked what she meant she said: "That dream, but it passed over". When another point was stimulated she said: "I am seeing somebody". A short interval was allowed, and the point was stimulated again without warning the patient. After a pause she said: "It's coming again". When asked if she saw somebody she said: "Sure, a boy". Later the electrode was kept in place for a longer period. She said: "Dream is starting. There are a lot of people—in the living-room—I think one of them is my mother."

This is one example of what is called the epileptic aura, a word which was coined centuries ago to describe the sensation which might precede a full-blown epileptic attack and was regarded as a warning of the attack. But very often the aura occurs without anything else. There are no convulsions, no falling, not even any loss of consciousness, though consciousness is obviously disturbed. Jackson concluded that the so-called aura was really the minimal, or first, expression of an epileptic discharge, and has been proved right in this too by the electroencephalograph. The word "aura", however, has been used so long to describe these sensations that it remains useful.

As I have indicated, there are many kinds of aura, somatic, visceral and psychical and, as one would expect, a great variety of psychical auræ, so great that one may go on learning about them all one's clinical life. There is an aura of some kind in about half of all epileptic attacks which the patient can remember after the attack. This is the indication of a discharge beginning in some particular area of the cortex and provides sure evidence of epilepsy. Whenever there is sudden and brief loss of consciousness the presence of an aura means that the attack has been a fit, not a faint. Even though the patient may be unable to describe any aura information may be obtained from a witness of something happening before the loss of consciousness which indicates local discharge—a sudden, staring look in the eyes, smacking movements of the lips, or momentary confused behaviour. These do not happen in a faint. There are other points also of importance, all related to the fact that in an epileptic attack the disturbance of function begins in some part of the brain, whereas in a faint the brain is involved as a whole.

The epileptic discharge may be restricted to those parts of the brain that serve consciousness. It is quite common, therefore, for a patient in a minor epileptic attack to lose consciousness without falling, the centres for posture tone not being involved. Much more rarely the centres for posture tone may be involved without those for consciousness. The patient simply falls without loss of senses. Usually, of course, both are involved, there is loss of senses and falling. If, however, there is dissociation we may be sure of an epileptic attack, for in a faint, the brain being affected as a whole, loss of senses and falling always occur together. Another common occurrence in minor epileptic attacks is involuntary micturition. This again must be due to involvement of the appropriate centres in the epileptic discharge. It is not just an effect of loss of consciousness. Some patients in the minor epileptic attacks invariably wet themselves with only a momentary loss of senses, others may be unconscious longer and never have incontinence. In fainting, as I have said, incontinence of urine may occur if the bladder happens to be full, but frequently repeated incontinence of urine always means epilepsy.

I have dwelt upon some important differences between fits and faints, and must now consider some important points of resemblance. The epileptic discharge may begin in, and be mainly confined to, visceral centres. Thus, sudden pallor is often the first sign of a minor epileptic attack, a sign which Jackson insisted must be evidence of a discharge involving vasomotor centres. Nausea, palpitation and respiratory distress may also usher in the attack. Thus, some minor epileptic attacks may closely resemble faints. We have then to depend a good deal upon the setting of the attack for differential

diagnosis. A faint, as I have said, should have a cause, postural or emotional, and occurs almost always in the erect posture. Minor epileptic attacks as a rule are causeless. They are moreover apt to occur in batches. The patient may have two or three in a week and then none for several weeks, and again a series. They are apt, too, to occur at particular times of the day, especially the early morning. But the most constant and important feature of minor epilepsy is the absence of cause. Even this distinction, however, is not absolute. In rare cases of minor epilepsy precipitating factors may be observed. The precipitant may be quite specific, and these cases have therefore been called reflex epilepsy. Sound is the commonest precipitant, for example a sudden, unexpected noise, but the stimulus may be much more specific than this. There are some epileptics whose attacks are only precipitated by certain musical sounds—so-called musicogenic epilepsy. In some cases the act of micturition, in others sexual orgasm, may be the essential stimulus, and in a few sudden emotion. Therefore, it is not absolutely true to say that an attack of unconsciousness precipitated by emotion must be a faint, not a fit.

In connection with this observation it is worth mentioning that in certain persons the liability to faint also may be related to particular emotional stimuli. There are people, for example, who are not in the least neurotic, who faint at the sight of blood, or if they witness an accident, or even if they hear an account of injury as at a first aid lecture.

I have already remarked upon the fact that if in a faint of emotional origin the heart rate is slow enough for long enough the patient will actually have a fit. This may result in some very difficult diagnostic problems. One such case I have recorded on account of the exceptional opportunities for observation, and I will quote it to you now as an example of the difficulties that may arise.

I was consulted about a boy of thirteen who had had several attacks in which he had lost consciousness suddenly and with hardly any warning, and in one or two of these attacks had had convulsive movements of the face and hands. He was taken to a doctor, who while examining his chest in a standing posture observed an attack. This is his doctor's account of what then happened. " On looking up at his face I noticed that he was going off, getting very white, and then subsided on the floor. I let him down gently. At first he appeared pale and rigid, then I saw a slight degree of cyanosis of the lips, and at the same time I noticed twitchings of fingers and hands. This only lasted a few moments, his colour then returned and he got up and said he was all right."

On enquiry I found that, including this episode, he had had five of these attacks in the same number of years and that they had all occurred in a setting appropriate to fainting, the first on being taken to the dentist, the second the first time he was up after the influenza, the third when awaiting medical examination in a line of boys at school, the fourth when standing in line waiting to be inoculated. I concluded that in spite of the convulsive movements they were faints, though his own doctor had thought them epileptic.

Eight years later I saw him again. In the interval he had had occasional attacks, at a parade for medical inspection at school, while attending a first aid lecture as an army cadet and later during a medical examination. This last attack was preceded by what he called palpitation, for a second or two his heart seemed to be labouring—then he found himself on the floor. The medical officer had no doubt this was a fit and sent him to a neurologist, who while listening to his heart noted sudden slowing and then cessation of the beat for 45 seconds, during which he had a fit, rolling eyes, rigidity and a few convulsive movements. The neurologist rightly concluded that the fit was due to the prolonged ventricular stand-still, and the diagnosis of heart block was made, though there was no clinical evidence of heart disease, and the electrocardiograph was normal.

Subsequently Dr. Denis Williams observed an attack which was induced by the threat of drawing blood from him with a needle, while an electroencephalograph and electrocardiogram were taken, in the sitting posture. There was marked slowing of the pulse with pallor, going on to a slight degree of cyanosis and disturbance of consciousness, but without any abnormality in the electroencephalography.

Thus my original opinion that the attacks were faints was vindicated. I may add that apart from his unusual proclivity to fainting under special circumstances this patient was a normal healthy person and served in the war with distinction as an officer in a Guards battalion.

The electroencephalograph was useful in this case in a negative way as a means of confirming the clinical diagnosis, and it is often useful in a positive way for in many cases of minor epilepsy it will detect little epileptic discharges which may be of frequent occurrence without any associated clinical manifestation—larval attacks. But the electroencephalograph is by no means

infallible. There are patients with undoubted epilepsy in which it is normal. Clinical enquiry and observation therefore remain the most important means of diagnosis.

This problem of the differential diagnosis between fit and faint is one which you are all certain to encounter, for fits and faints are both very common. I have said nothing about other causes of sudden loss of consciousness, such as Stokes-Adams attacks, hypoglycæmia or cerebral hæmorrhage—these have clearly to be taken into account in the clinical examination. The problem which I have been thinking of is that of the otherwise healthy young person who is brought to you with the story of one or more brief episodes of loss of consciousness and shows no abnormality on physical examination. It is important that the diagnosis should be accurate and early for two reasons. First, it is an immense relief to the patient and his relatives if you can assure them that the attack has been a faint, second, if it is epileptic the sooner appropriate treatment is given the better the chance of controlling the attacks.

September **ACADEMIC**

		Exhibition. Surgical Department. "Rectal Bleeding."
11th	1.00.	Mr. Wass. Clinical Lecture. "The Place of the Surgeon in the Treatment of Peptic Ulceration."
	5.00.	Mr. Murray Falconer. Neurosurgical Demonstration.
12th	1.00.	Dr. Hampson. Clinical Lecture. "Stomatitis."
13th	10.00.	Mr. A. H. Hunt of St. Bartholomew's Hospital. Departmental Round. Clinical Theatre.
15th	1.00.	Mr. Atkins. Clinical Lecture. "Radioactive Isotopes in Medicine and Surgery."
18th	1.00.	X-Ray Meeting. Gordon Museum.
19th	1.00.	Dr. Kauntze. Clinical Lecture. "Disease and Dr. Samuel Johnson."

NOTICE

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CORRECTION

Dr. John Fry, whose paper "The Work of a General Practitioner" appeared in our last issue, asks us to say that the words "catarrhal chill" appearing in the last paragraph on page 336, should read "catarrhal child",

The Dancer's Foot

By T. T. STAMM, M.B., B.S., F.R.C.S.

A Talk given at the Foot Health Exhibition, 17th June, 1952

OUR feet are designed to give us reasonable service for a lifetime, yet if we look at young people applying for entry into the Services, we find that they are turned down more often on account of their feet than for any other cause. If we turn to the middle-aged, we find that the cry of " my poor feet " is the constant accompaniment of most human activities. In the aged it is again their feet which are the most important factor in determining whether they can continue to lead useful and active lives. So this is not a problem of one age, it is a problem affecting the whole population. Recent surveys show that at any given moment 30% or one-third of the whole population, counting all ages from babies upwards, suffer from something wrong with their feet. The fact that instead of having feet we have a " foot problem " must mean that there is something radically wrong about the way we look after them.

When I was asked to talk about the dancer's foot, I at once appreciated that I knew very little about it, for we rarely see dancers in our orthopædic clinics on account of their feet. Now, no section of the community demands more of their feet than dancers, so it would seem profitable to enquire why they don't get more foot trouble. Have they all got super feet, or have they perhaps learnt through force of necessity how to look after them better ? If so, perhaps we can learn something from them.

Through the kindness and help of Miss de Valois, I have been enabled to learn a little about the dancer's foot, and it is my job today to pass this information on to you. The first thing I learnt was that the dancer has not got super feet, for if only those who had perfect feet were allowed to take up dancing there would be very few dancers. In fact, though I hate to shatter any illusions, their feet are very much like yours and mine. They may even possess bunions !

How then do they manage to get such amazing use out of them ? The answer is actually quite simple : by perfect control with good muscles. The dancer's training has these two objects in view. First, to teach them to use their feet, and the rest of their bodies, to the best advantage ; and second, to build up good muscles and good muscle control with which to do it. Once this has been achieved they can submit their feet to heavy and continuous strain without ill effect.

This brings up several important questions. Can the rest of us learn something from the dancer, to get better use out of our feet ? Would dancing training be good for our children ? Could it do them any harm ?

Let us consider children first, for many parents are worried by the conflicting advice they receive. Sometimes they are told that it is excellent training, while others warn them that the strain imposed may cause serious damage. As in many cases where there is conflict of opinion, both are right ; but they are talking of different things.

Dancing itself imposes considerable physical strains which are very likely to be harmful to those who have not been specially trained to withstand them. Dancing training has been evolved gradually, in the light of experience, and is designed to ensure that the body will be used in the most effective and efficient manner possible. It is interesting to find that the basic ideas for such training are essentially the same as those on which we base our treatment of the physically defective.

Dancing training, and especially ballet technique, is a sound method of improving the physcial state of anyone. Dancing itself, on the other hand, is only for those who are physically strong enough to undertake it, and it may well be harmful even to the normal child who is growing rapidly. Here a word of warning is necessary.

The training of a dancer does not mean learning to do certain sequences of movements. It means learning to do certain movements and to hold certain postures correctly. Let me show you what I mean. Those who teach dancing hold that the posture and use of the feet should be controlled mainly from above, that is, by the way the rest of the body is used.

May I now introduce Miss Moore, who is a ballet dancer and has very kindly come along to act as a model. I will ask her first to demonstrate for us how the

dancer can control the posture of her feet by that of her body. (First, will you adopt the weak, bad posture of the tired city worker ?) You see, she is now suffering from knock-knees, a dropped tummy—which gives her indigestion ; a caved-in chest—which makes her feel tired and exhausted ; and flat feet—which must ache severely, for look how her whole body weight is forcing them over into a flat-footed attitude. (Now will you please return to your normal self ?) All that she has done is to bring her hip muscles back into tone, but look at the effect on her feet. They no longer look flat, and the weight is now falling on them squarely. This change from the weak, flat-footed attitude, to the strong active position is brought about simply by rotating the whole leg outwards from the hip. Now in ballet dancing the dancer frequently has to stand on the feet when they are rotated outwards so that the toes point in opposite directions. This position should be achieved by rotating the whole leg out from the hip. There will then be no undue strain on the foot. If, however, the position is gained by rolling out the foot itself, it will be forced over again into the weak, flat-footed posture and will be subjected to considerable strain. This is what will happen if the dancer is badly trained. This is just an example of the difference between good and bad training. They can reach the desired position and carry out the movements either way, but one will be likely to cause strain, the other will not. It illustrates what I meant when I said that dancing training was not a matter of teaching someone to do certain movements, but of training them to do such movements or adopt various positions correctly. When considering dancing training for children, therefore, we have to go further, and say that such training is good, but only so long as it is good training ; and further, that dancing itself may be harmful unless the child has not only been trained, but trained correctly.

Now let us consider the adult. We find that the dancer's foot does not differ essentially from the ordinary average foot, and that among any group of dancers we shall find all the usual types of feet, from the very supple, flat looking foot, to the stiff high-arched one. Miss de Valois will, I think, tell you that she does not like extremes in either direction. The very supple foot demands too much muscle control to keep it steady, while the very highly-arched foot is not, as you might think, the best, because it is always rather stiff and this makes it more subject to strain.

But no matter what its shape and type, it gives remarkably good service because it is well controlled by good muscles. From the point of view of our own feet, this is the essential fact. We could all get better service out of our feet if we could first learn to use them correctly and then give them a reasonable amount of exercise to keep their muscles in good trim. Our feet get too little exercise but too much standing. Standing about does not exercise them, it merely strains them. It is no use, however, thinking that going for a good walk will do any good, unless it is done regularly and unless you are using your feet properly and they are not, for example, being rolled over on to the uppers of your shoes.

This brings us finally to the important question of shoes, for there is no doubt that unsuitable footwear is the most potent cause of foot trouble. I should like to be able to tell you that the dancer, appreciating the importance of her feet, is always most careful to wear only the most sensible type of footwear. This would, I am afraid, not be strictly true, but it is, I think, true to say that she does take more care than most people to buy good shoes that really fit, and are the best compromise between what her feet would like and what fashion dictates. In any case, her feet are much better able to withstand the strain imposed by wearing fashionable looking shoes, because her feet are fit and healthy and not neglected and ill-used like those of most of us.

This, however, does not mean that one should wear clumsy, flat heeled shoes, for the mere fact of wearing something ugly and utilitarian has a very bad effect on one's posture. When we dress up to go out to a party, the fact that we are wearing smart and attractive clothes has an immediate effect on our general bearing and posture which adds at least half an inch to most people's stature.

The conclusions that we can draw are, therefore, that to get the best use out of our feet we should learn how to use them properly, give them that amount of exercise that we can carry out regularly, and clothe them with the best and smartest shoes that we can afford, having found out which make and style suits them best.

Correspondence

Guy's Hospital Biennial Dinner, 1952

SIR,—In spite of the fact that all the Guy's men in the last issue of the *Guy's Directory* have been sent a letter giving details of the Biennial Dinner to be held in the Grand Hall, Connaught Rooms, Great Queen Street, W.C.1, on Friday, October 3rd next, at 7 p.m. for 7.30 p.m., I still hear that some have not received this letter. I do not know the reason, but in every case where a letter has been returned efforts have been made to trace the present address and another circular has been sent.

Guy's men who know about this function will help me considerably if they would let their contemporaries know, and if they can attend I shall be pleased to send them the number of tickets required. (Tickets are 25*s*. each inclusive of tips but exclusive of wines.)

May I once again appeal to those who have qualified in recent years to make a special effort to attend as there is an impression that this is for the older generation only.

If difficulty is experienced in finding accommodation this can be overcome, as a number of Guy's men have offered hospitality for the night.

The Chairman is Sir Geoffrey Marshall, K.C.V.O., M.D., Consulting Physician to Guy's and I am hoping for a record attendance.

Yours, etc.,

O. GAYER MORGAN,
Hon. Secretary, Biennial Dinner.

Lynmouth Flood Appeal

SIR,—I would be grateful if you would allow me to thank through the *Gazette* all members of your hospital community who contributed to the collection organised by the Christian Union on behalf of the Lords Lieutenant of Devon and Somerset National Appeal Fund.

The total collected was £51 11*s*. 3*d*., which the National Provincial Bank kindly accepted and remitted without charge.

Yours, etc.,

H. J. HALESTRAP,
Treasurer,
Guy's Hospital Christian Union.

GUY'S HOSPITAL CHAPEL

HARVEST THANKSGIVING

will be observed at Guy's on

SUNDAY, 21ST SEPTEMBER, 1952
Feast of St. Matthew

THE SERVICES IN THE CHAPEL WILL BE :

7 a.m. Holy Communion
10.45 a.m. Morning Service and Address by
THE REVD. S. SANFORD, B.D., A.K.C.,
Charterhouse Missioner

The Chaplain would be grateful for gifts in kind sent to him before noon on Saturday, September 20th.

Reviews

The Control of Communicable Diseases. HUGH PAUL. London, Harvey and Blythe Ltd., 1952. 546 pages. 29 Illustrations. Crown Quarto. *Price* 55*s.*

Yet another volume on communicable diseases makes its bow. This time, however, it is not a competitor with the existing ample range of clinical text books on infectious diseases, but rather an enlargement (to the tune of 546 pages) of the section on this subject usually to be found in text books on public health. But the scope of this book is unusually wide and its manner refreshingly critical as the author probes through the welter of current practice to the fundamental concepts underlying the practice of preventive and sometimes of therapeutic medicine. He does not hesitate, for instance, to include from the preventive point of view discussions on cancer (as a potentially preventable disease), on the psychological strains of civilised life, on the apparent increase of coronary disease, on diabetes, on accidents in the home and on deaths on the road. For him the challenge to medicine is the elucidation of the whole gamut of factors which make for prevention of disease and enhancement of health. The author constantly challenges conventional ideas and orthodox practice, such as routine admission to hospital of children with scarlet fever, *automatic* exclusion of contacts from school and terminal disinfection. He has some hard things to say of children's hospitals. Acute emergencies are too often left to an inexperienced house officer. " No child should be admitted direct to an open ward without a complete and unhurried examination by a competent clinician." If the recent investigation into cross infection in children's wards is generally applicable, " it means that of every 1,000 children admitted to hospital, 71 are given a new disease and 4 or 5 are killed by it." " The convenience of the clinician has far too much influence on the dangerous practice of admission of very young children to hospital." Data and discussions on each subject are given in considerable detail. Among the best chapters are those on smallpox and vaccination, typhoid and paratyphoid, poliomyelitis, food poisoning and the hygiene of food establishments. This is an able, informative and provocative book which, if its lessons are thoroughly learned, must lead gradually to notable improvement in the health of individual patients and the community. The physician, the pædiatrician, the general practitioner, and the student as well as the health officer cannot fail to be stimulated to more rewarding efforts by the freshness of its approach and the able marshalling of its data. H.S.B.

Cardiographic Technique. By S. L. BARRON and A. SCHOTT. Heinemann. *Price* 21*s.*

This book has been designed to help cardiological technicians by giving them a full understanding of their instruments and some insight into the significance of their work. Most of the space has naturally been devoted to electrocardiography, but there is a chapter on phonocardiography.

The various types of apparatus and their use are described, and the principles on which they work are explained. There is a good series of illustrations of common technical faults with means of correction ; and many useful hints are given, obviously drawn from personal experience, on how to ensure a perfect picture. But we do not subscribe to the suggestion (nor to the inference of the remark we have put in italics) that before developing a film " it is as well to remove the electrodes and *leave the patient comfortable* " because, " If a further record should be required, it is always best to re-apply the electrodes."

The anatomy and physiology of the heart, the theory of electrocardiography and the normal electrocardiogram are dwelt upon in considerable detail ; on the other hand there is no mention of the pathological changes with which the technician will be at least as much concerned. This seems quite irrational and detracts considerably from the value of the book. The addition could be made with little increase in length by severely pruning the chapter on the normal heart and electrocardiogram, by avoiding repetition, and by simplifying the more involved passages in the book.

The volume is nicely produced, but even so the price seems excessive and likely to be a considerable deterrent to the junior technician for whom it is primarily intended. G.L.L.R.

Hospital Information, etc.

DEPARTMENT OF MEDICINE
SECOND INTERNATIONAL CONGRESS OF INTERNAL MEDICINE

ON the 18th September delegates from the Second International Congress of Internal Medicine will visit Guy's Hospital. A series of demonstrations and exhibits has been arranged for them by the Department of Medicine. The Clinical demonstrations will take place in the Pre-Clinical Class Room and the York Clinic. Other exhibits will be shown in the Biology Laboratory in the Medical School, and in the Gordon Museum.

The following synopsis gives an idea of the scope of the programme:—

1. *Isonicotinic Acid Hydrazide.*
   Its effect on patients suffering from chronic pulmonary tuberculosis.
   Dr. K. S. MacLean and Dr. C. L. Joiner.
2. *Cardiological Demonstration.*
   Analysis of 600 cases of congenital cyanotic heart disease. Results of 200 cases submitted to the Blalock-Taussig operation (subclavian-pulmonary anastomosis) and of 100 direct operations on the heart by Mr. R. C. Brock.
   Analysis of 400 acyanotic cases.
   Cardiac catheterisation and angiocardiography.
   Dr. Maurice Campbell.
3. *Department of Radiology.*
   (*a*) Angiocardiography.
   (*b*) Neuroradiology.
   (*c*) Mitral disease.
   Dr. T. H. Hills.
4. *Peripheral Neuritis and the Blood Keto-Acids.*
   The technique of paper chromatography.
   Effect of treatment with thiamin on blood keto-acid levels.
   Dr. C. J. Earl, Dr. M. F. S. El Hawary, Professor R. H. S. Thompson.
5. *Dermatological Demonstration.*
   (*a*) The use of cortisone in the treatment of pemphigus and lupus erythematosus.
   (*b*) The penetration of thorium X in the skin and its detection in the blood.
   Dr. L. Forman, Dr. E. J. Moynahan, Mr. A. Nightingale, Mr. I. G. Austin.
6. *Hæmochromatosis.*
   Results of prolonged absorption of slight excess of iron.
   Repeated bleeding as a possible method of reducing excessive iron storage.
   Dr. J. C. Houston.
7. *Department of Psychological Medicine.*
   (*a*) Electro-convulsive therapy.
   (*b*) Treatment by insulin coma.
   Dr. T. A. Munro, Dr. D. Stafford-Clark, Dr. T. A. B. Harris.
8. *Cushing's Syndrome.*
   A demonstration based on twenty-five cases seen at Guy's since 1932.
   Dr. P. M. F. Bishop, Mr. F. N. Glover, Dr. R. R. de Mowbray, Dr. M. G. Thorne.
9. *Hormone Treatment of Cancer.*
   A demonstration of the treatment by hormones of a series of cases of advanced cancer of the breast.
   Mr. H. J. B. Atkins.
10. *Department of Pædiatrics.*
    (*a*) The neurological sequelæ of icterus gravis neonatorum due to Rh incompatibility.
    (*b*) Facial and intracranial angioma treated by hemispherectomy.
    (*c*) Vasomotor disturbance in infantile acrodynia.
    (*d*) The urinary excretion of melanophore-expanding hormone of pituitary in infantile acrodynia.
    (*e*) Visual aids for teaching pædiatrics.
    Dr. Philip Evans, Dr. Ronald MacKeith, Dr. P. E. Polani, Dr. D. G. Vulliamy.
11. *The Gordon Museum.*
    The Museum and exhibits of historical documents and apparatus will be on view.
    Dr. Keith Simpson.
12. *The proposed New Hospital.*
    Models and architects' drawings will be available for inspection.

All the demonstrations and exhibits are open to students at the hospital but in order to prevent overcrowding, they are asked to come *after* 12 *noon* that day.

House Appointments

1st SEPTEMBER, 1952

ASSISTANT HOUSE SURGEONS.

To Mr. Slesinger : Mr. D. A. F. McGill.
„ Mr. Blackburn : Mr. W. D. Hayley.
„ Mr. Lawrie : Miss June Brett.
„ Mr. Glover : Mr. P. F. A. Crawshaw.
„ Mr. Brain : Mr. H. H. Bishop.

Appointed for six months, the first three months as A.H.S.

OUT-PATIENT OFFICERS.

Miss J. C. M. Heylen.
Mr. B. L. Mallett.
Mr. G. A. Marin.
Mr. J. A. Smith.
} 3 *months.*

HOUSE SURGEONS.

To Mr. Massie : Mr. A. P. Blower. 6 *months.*
„ Mr. Eckhoff : Mr. J. Palmer. 3 *months.*
„ Mr. Atkins : Mr. E. D. Sonnenfeld. 6 *months.*
„ Mr. Wass : Mr. G. M. Karpusheff. 3 *months.*

HOUSE PHYSICIANS.

To Sir John Conybeare and Dr. Hardwick : Mr. C. F. Bolton. 6 *months.* Mr. A. V. Large. 3 *months.*
„ Dr. Douthwaite and Dr. Mann : Miss E. Morrison. Mr. A. Fairley. 6 *months.*
„ Dr. Boland Mr. E. J. Rolls.
„ Dr. Baker and Mr. P. F. P. Lansdown.
„ Dr. MacLean : 3 *months.*
„ Dr. Hampson and Mr. G. B. Davison.
„ Dr. Kauntze : Mr. D. C. Wilkins. 3 *months.*

RESIDENT OBSTETRICIANS.

1. 5.52—31.10.52 : Mr. R. D. Allen.
1. 7.52—31.12.52 : Mr. R. G. Nicholson.
1. 9.52—28. 2.53 : Mr. A. S. Harris.
1.11.52—30. 4.53 : Mr. A. A. Craigen.

OPHTHALMIC HOUSE SURGEON.

(Non-resident)

Mr. A. S. Jones. 6 *months.*

THROAT AND EAR HOUSE SURGEON.

Mr. R. D. France. 3 *months.*

DERMATOLOGICAL HOUSE PHYSICIAN.

(Non-resident)

Mr. G. A. E. Baker. 3 *months.*

NEUROLOGICAL HOUSE PHYSICIAN.

Mr. W. G. Davies. 6 *months.*

GENITO-URINARY HOUSE SURGEON.

Mr. W. M. E. Tweed. 6 *months.*

CHILDREN'S HOUSE PHYSICIANS.

Mr. G. H. Fisch. 3 *months.*
Mr. A. J. Salmon. 6 *months.*

HOUSE SURGEON TO THE THORACIC UNIT.

Mr. I. H. Kerr. 3 *months.*

HOUSE SURGEON TO THE NEURO-SURGICAL UNIT.

5. 5.52—4.11.52 : Mr. J. D. Carroll.
5.11.52—4. 5.53 : Vacant.

RESIDENT JUNIOR CLINICAL PATHOLOGISTS.

1.10.52—31.3.53 : Mr. R. H. R. White. Mr. E. R. Herst.

HOUSE PHYSICIANS IN THE YORK CLINIC.

1.6.52—30.11.52 : Mr. P. M. J. O'Brien.
1.9.52—28. 2.53 : Mr. E. I. Evans.

RESIDENT ANÆSTHETISTS.

20.3.52—19.9.52 : Mr. P. S. B. Russell.
7.7.52— 6.1.53 : Mr. M. P. Coplans.
20.9.52—19.3.53 : Vacant.

R.M.O's., NUFFIELD HOUSE.

18. 3.52—17. 9.52 : Mr. M. C. Gilbert.
8. 4.52— 7.10.52 : Mr. H. M. Baird.
18. 9.52—17. 3.53 : Mr. E. F. Soothill.
8.10.52— 7. 4.53 : Mr. H. M. Baird.

ORPINGTON HOSPITAL.

Throat and Ear House Surgeon.
Mr. H. S. Reeve 3 *months.*

Gynæcological House Surgeon.
Vacancy re-advertised.

PEMBURY HOSPITAL.

House Surgeon.
Mr. C. T. M. Wilson.

House Physician.
Mr. D. B. Murray.

QUEEN MARY'S HOSPITAL, SIDCUP.

House Surgeon.
Mr. P. E. Kapff.

House Physician.
Mr. D. M. E. Allan.

House Surgeon for General Surgery and Orthopædics.
Vacancy re-advertised.

ST. OLAVE'S HOSPITAL, BERMONDSEY.

House Surgeon.
Mr. G. L. S. Rankin.
(Beginning Sept. 2nd, 1952)

APPOINTMENTS

GUY'S HOSPITAL

JUNIOR STAFF, 1952–53

The following appointments and re-appointments to the Junior Staff for the period commencing 1st October, 1952, have been made by the Board of Governors. Other appointments will be announced as soon as possible.

MEDICAL STAFF

Medical Registrars :
Batty Shaw, A.
Baylis, J. H.
Finnegan, T. R. L.
Joiner, C. L.
Thorne, M. G.

Junior Medical Registrars :
Brewin, T. B.
Deuchar, D. C.
Gray, K. W.

Surgical Registrars :
Counsell, P. B.
Kinder, C. H.
Lane Roberts, P. A.
Large, P. G.
Parks, A. G.
Ticehurst, R. N.

Obstetric Registrars :
Evans, G. M.
Williams, E. A.

Genito-Urinary Registrar :
Guerrier, H. P.

Throat and Ear Registrars :
Malcomson, K.
Trethowan, J. D.

Thoracic Registrar :
Milstein, B. B.

Diagnostic Radiology Registrars :
Medill, E. V.
Vance, J.

Physiotherapy Registrars :
Fulton, J.
Joyce, J. A. M.

Registrars in the Department of Clinical Pathology :
Brunsdon, D. F. V.
Greenburgh, H.
Shaw, C. S. (Evelina Hospital)
Symonds, W. J. C.
Turk, D. C.

Registrars in the Department of Psychological Medicine :
Crawford, J. P.
Davys, M. G. D.
Dobson, J. R.
Flood, J.
Greenburgh, H. P.
Vaughan, G. F.

Anæsthetic Registrars :
Davies, D. G. H.
Hall, J. M.

Hæmatological Registrar :
Stoddart, F. G.

Radiotherapy Registrar :
McArthur, J. M.

Neurology Registrars :
Glasgow, G. L.
Mackenzie, I. C. K.

Dermatological Registrar :
Montgomery, P. R.

Children's Registrar :
Vulliamy, D. G.

DENTAL STAFF

Dental Officer to Salomons Centre :
Loader, G. S.

Orthodontic Assistants :
Bull, C. C.
Kerr, G. A.

Dental Officer to the Nursing Staff :
Searle, E. G.

Registrar in Extractions and Minor Oral Surgery :
Bridge, A. J.

Registrars in the Department of Conservative Dental Surgery :
Dinsdale, R. C. W.
Feaver, R. E.
Grimer, P. T.
Hart, R. J.
Haworth, J. D.
Jennings, A. G. P.
Robinson, A. A.
Rowe, A. H. R.
Sunaway, K. S.

Registrar in Clinical Dental Surgery :
Johns, S. P.

Registrars in the Dental Department for Children :
Campbell, A. C.
Kettle, M. A.

Registrars in the Casualty Department :
Neill, D. J.
Rotheram, W.

Registrars in the Depar ment of Mechanics and Prosthetics :
Dyer, G. F.
Malleson, M.
Morris, P. B.
Rand, A.
Searle, E. G.

Registrars in the Department of Preventive Dentistry :
Day, R. J. G.
Hill, P. J.
Pett, B. W.

APPOINTMENTS VACANT

The Board of Governors of Guy's Hospital invite applications from registered Dental Practitioners for the following appointments to commence duties in **October, 1952 :**

One Part-time **Registrar** in **Conservative Dental Surgery** with attendance on 6 sessions per week.

One Part-time **Registrar** for **Extractions and Minor Oral Surgery** with attendance on 6 sessions per week.

One Part-time **Registrar** in **Preventive Dentistry** with attendance on 5 sessions per week.

The posts will be subject to the Terms and *Conditions of Service of Hospital Medical and* Dental Staff in the National Health Service. Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1, to whom applications should be sent not later than **30th September, 1952.**

GUY'S HOSPITAL MEDICAL SCHOOL
JUNIOR STAFF APPOINTMENTS
1952–53

Biology Department—Lecturers :
Griffiths, J.
Price, Myfanwy

Physics Department—Lecturer :
Moore, R. D.

Anatomy Department—Junior Lecturers (W/T) :
Ellis, F. G.
Gilbert, M. C.
Hamilton, J. G.
Williamson, A. W. R.

Anatomy Department—Junior Lecturer (P/T) :
Pugh, D. R.

Physiology Department—Senior Lecturer :
Anderson, D. J.

Physiology Department—Junior Lecturers :
Macdonald, I.
Ross, A. F.

Morbid Anatomy and Histology Department—Junior Lecturers :
Bensted, J. P. M.
Enticknap, J. B.

Morbid Anatomy and Histology Department—Junior Lecturer and Gull Student :
Wright, E. A.

Bacteriology Department—Junior Lecturers :
Anderson, K. F.
King, M. B.

Chemical Pathology Department—Senior Lecturer :
Tickner, A.

Chemical Pathology Department—Junior Lecturer :
Webster, G. R.

Assistant to the Director of the Department of Medicine :
Allanby, K. D.

Junior Assistant (Research) to the Director of the Department of Medicine :
Tounce, J. R.

Tutor in charge of the Preliminary Clinical Period Class :
Houston, J. C.

Junior Assistant to the Director of the Department of Surgery :
Stebbing, J. G.

Assistant to the Director of the Department of Obstetrics :
Hammond, G. T.

Assistant to the Director of the Student Health Service :
De Mowbray, R. R.

GUY'S HOSPITAL DENTAL SCHOOL
JUNIOR STAFF APPOINTMENTS
1952–53

Full-time Head of the Department of Preventive Dentistry :
Emslie, R. D.

Full-time Assistant in the Dental Department for Children :
Tulley, W. J.

Head of the Dental Photographic Department (P/T) :
Robinson, A. D.

Lecturer in the Department of Dental Medicine (W/T) :
Cooke, B. E. D.

Demonstrator in Special Anatomy and Histology (P/T) :
Harrison, F.

SPORT

GUY'S HOSPITAL
LAWN TENNIS CLUB

v. **Sundridge Park**
Result—Won 5—3

v. **West Herts.**
Result—Lost 5—4

v. **Sundridge Park**
Result—Lost 6—3

Summary of Results, 1952

Mens 1st VI
Played 19 Won 11 Lost 8

Men's 2nd VI
Played 6 Won 4 Lost 2

Ladies' VI
Played 10 Won 6 Lost 4

CHANGE OF ADDRESS

C. F. Hawkins, M.D., 15, Sharmans Cross Road, Solihull, Warwickshire. Tel. : SOL 0172. (Consulting Rooms), 89, Harborne Road, Edgbaston, Birmingham. Tel. : EDG 0328.

BIRTHS

BUSH.—On 29th July, 1952, at Ashford, Kent, to Betty, wife of Raymond Bush, M.B., B.S.—a brother for Gillian and Adrian (Jonathan Paul).

SINGER.—On 27th August, 1952, at St. Mary's Hospital, Paddington, to Joyce (née Fry), wife of Ivor Singer, B.D.S., L.D.S., R.C.S.—a daughter (Anne).

STEPHENS.—On 14th August, 1952, at Nuffield House, Guy's Hospital, to Joan (née Wales), wife of Philip Maxwell Stephens, L.D.S., R.C.S.—a daughter (Sarah Maxwell).

SMITH.—On 25th August, 1952, at the Blue Sisters' Maternity Home, Sliema, Malta, to Marianne (née Browning), wife of T. Morrish Smith, L.D.S.—a daughter (Barbara).

MARRIAGES

BERESFORD—MANN.—On 9th August, 1952, at Leigh-on-Sea, Essex, George Philip Beresford, to Gillian Mann, S.R.N.

TWEED—DALLING.—On 12th July, 1952, at Cardiff, William M. E. Tweed, M.B., B.S., son of Dr. and Mrs. Martin Tweed, Wellington, New Zealand, to Beryl Dalling, S.R.N., daughter of Mr. and Mrs. Arthur Dalling, Cardiff.

EDS. { E.E.D.T. / R.D.W.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1674 *20th September* 1952 *One Shilling*

PASSIM

THERE has lately been much discussion about the methods used in selecting primary school children for more advanced forms of education. The Intelligence Test, as a criterion of intelligence, has been examined afresh. Serious doubts as to its fairness have been voiced by parents and university dons : effective arguments in its defence have been advanced by some head teachers and those engaged in educational research. The children are silent. It may safely be assumed that letters on this subject which have appeared, notably in the *Times*, represent only a small proportion of the varying opinions which have been expressed either with a view to publication or privately between the three interested parties—the educational authorities, the parents, and (most important of all) the children themselves.

Significantly the published correspondence has been freely monopolised by the educationalists and parents. Children who, it may be remarked, are allowed wide personal choice in many junior schools as to the manner in which they occupy their time there, are not thought to hold opinions worth serious consideration on tests of intelligence which vitally affect their future welfare. They may choose freely between poetry and plasticine, but may not, apparently, select, or even comment upon, the methods by which their educational attainments shall be assessed. There is no suggestion in all this that either parents or educational authorities have any personal axes to grind. It is controversy over the child's best interests alone which has touched off the whole battery of argumentative artillery.

A medical journal is, naturally, unwilling to place itself in the direct line of such fire from whatever quarter it may come. Since, however, the medical profession as a whole is much concerned with those students who, as products of the current system of education, enter its schools and hospitals, it is pertinent to examine one important feature of what one may call the " short cut " questions set in a modern intelligence test. The manner in which these questions are posed and intended to be answered is likely to have an unfortunate influence on the free use of those critical faculties which are vital to all who practice the various branches of medicine. Certain of the questions are framed in some such manner as this :—

Place a cross against the correct description.

Michael Faraday was

A film star.

An explorer who reached the North Pole.

A 19th century scientist interested in electric currents.

Imprisoned in the Tower of London.

There are at least two dangerous assumptions inherent in this type of " test " :

1. That the correct answer *is* to be found in one of these four alternatives.
2. That such a " correct " answer is the characteristic by which the person named is most widely remembered.

The first assumption, which is especially tempting in an examination written, as these tests usually are, against a very tight time schedule, tends

immediately to direct the mind inwards. The answer is in one of those four alternatives and everything else can be discarded as irrelevant. This attitude provides a complete negation of true education—which, as its derivation implies, is a process whereby the mind is led outwards : broadened : released. As to the second assumption : what of a young scholar who, nurtured in a powerful family tradition of pride in ancestry, decides to discard all four alternatives, about which in any case he probably understands very little, and write down :

" My great grandfather "

about whom he already knows a great deal ? If he does so, he is wrong. He is not intelligent like Francis next to him who has stuck a pin against the third alternative and got full marks in consequence. Yet if given freedom of choice in framing his answer to a question worded, for example, " What do you know of Michael Faraday ? " Francis would have nothing to say.

Modern intelligence tests are, of course, wider in scope and more searching than this fanciful example might imply. Nevertheless the danger is there. The deplorable parochialism which must develop from an elaboration of this " short cut " question-answer technique is by no means imaginary. The device, as a time saver, has much to commend it. From an intellectual point of view it exists merely to be condemned. Infiltration of this technique into the realm of adult education should be contested by every means available to responsible teachers.

An open mind in dealing with problems is an essential part of the character of those who practice medicine. There are no short cuts by which apparently irrelevant material may be summarily discarded. The Intelligence Test, which includes an elimination of limited alternatives, strikes a damaging blow at that impartial outlook and breadth of vision which those who learn should constantly try to achieve.

The Governors of Guy's Hospital have purchased from the endowment funds, the estate of the late Mr. J. V. Rank, situated in Surrey on the Godstone-Oxted road.

No decision has yet been made as to the use to which this large house and the adjacent grounds should be put, but its proximity to the Preliminary Training School at Nutfield opens up various possibilities. A decision as to its eventual use will be made in the near future.

Mr. L. F. W. Salmon, who has been Chief Assistant in the Ear, Nose and Throat Department since 1946, has been appointed Consultant Ear, Nose and Throat Surgeon to Guy's and Evelina Hospitals. Mr. Salmon qualified as M.B., B.S.(Lond.) in 1938, F.R.C.S.(Eng.) in 1948 and M.S.(Lond.) in 1949. We congratulate him on his appointment which he takes up on October 1st.

We have much pleasure in announcing the appointment of Mr. R. H. F. Brain, M.B., Ch.B., F.R.C.S., as Assistant Surgeon with duties in General Surgery and in Thoracic Surgery. Mr. Brain, who is a graduate of Birmingham University, has recently held the appointment of Consultant Thoracic Surgeon to the Midland Regional Board. In addition to a brilliant professional career he has taken a prominent part in the sporting activities of his University where he obtained his full colours and was selected in three seasons for touring sides with the Universities' Athletic Union Rugby Football team.

Mr. Brain will take up his new duties about the middle of October. He is assured of a warm welcome at Guy's.

Obituary

WILLIAM EDWARD ROBINSON, M.D.(Oxon.), M.R.C.P.

DR. ROBINSON, who died at the age of 82, was the eldest son of the late Rev. I. E. Robinson, M.A., the notable "Bell-Ringing Parson" and at one time vicar of Drayton, Abingdon, Berks. Born at Appleton, Berks., he was educated at Abingdon grammar school and at St. Catherine's Hall, Oxford. Up at Oxford he gained a "Trials Cap" in the Varsity Eight and was a keen member of the London Rowing Club in later years. He entered Guy's in the early nineties and at once made his mark to complete the M.B., B.Ch. degrees and to take the College Qualifications. He was a Clinical Assistant and became House Surgeon to Clement Lucas.

At Guy's he was recognized as a student of outstanding ability and was very popular with his fellow students who noted his sense of humour with cynically-tinged witticisms ever readily exhibited. He was one of the group who figured in the exploits of the so-called "DisGuysed Minstrels", taking a leading part in the organisation of the first venturesome tour made by them in the suburbs of London. Their performances were gladly applauded, and eventually brought in a goodly sum handed over to the Treasurer for the benefit of Guy's Hospital. After leaving Guy's he was for a few years in practice at Brenchley, Kent, and later at Sonning, Berks., in association with the late Dr. Fred Young whose friendship he enjoyed for many years. Attracted by the offer of staff appointments in London, Bill came to live in Richmond and later on in the West End where he carried on an extensive general practice. He was a keen and efficient anæsthetist, holding positions at the Royal Waterloo, the Southend, and West London Hospitals. He took his M.D.(Oxon.) in 1906 and M.R.C.P.(Lond.) in 1921—being at this time on the staff of the Infants' Hospital, and succeeding Eric Pritchard as Senior Physician. He wrote articles on Baby Welfare; The Mental and Moral Training of the Child; and on The Relationship between Grave's Disease and Acute Rheumatism—an excellent thesis for his M.D.

Robinson's professional association with his patients was always thorough and sympathetic: he had a fine sense of diagnosis: his advice was much sought after and deeply appreciated. The writer held his valued friendship for over 60 years, knowing well this quality of his work and of his general ability as a physician, and recognised his openhandedness and companionship socially; he was indeed a *Bon Viveur*. — e vivant

To his widow and family of two married daughters, to whom he gave ungrudging devotion, a wide circle of friends will extend their sympathy. The last years of his life were clouded by increasing blindness and deafness and latterly by complete helplessness, but with his wife he had received unstinted assistance and kindness from the staff of the Residential Club at East Grinstead, where he passed peacefully away on 2nd September.

H.J.S.

ACADEMIC

September		
		Exhibition. Surgical Department. "Rectal Bleeding."
22nd	1.00.	Mr. Marston. Clinical Lecture. "Safe Anæsthesia."
25th	5.00.	X-Ray Meeting. Gordon Museum.
26th	1.00.	Sir John Conybeare. Clinical Lecture. "Angina and Cardiac Infarction."
27th	10.00.	Clinico-Pathological Meeting.
29th	1.00.	Mr. Cook. Clinical Lecture. "Abortion."
October		
2nd	5.00.	X-Ray Meeting. Gordon Museum.
6th	1.00.	Dr. Craft. Clinical Lecture. "Surgical Amputations and the Treatment of Amputations."

Hormones and Cancer

By P. M. F. BISHOP, D.M., M.R.C.P.

A Clinical Lecture delivered in the Medical School, Guy's Hospital, on 6th May, 1952

PART I

LADIES AND GENTLEMEN,—In the present state of knowledge concerning hormones and cancer two questions arise : do hormones cause cancer ; and, do hormones cure cancer ? It is my object today to discuss with you the available evidence.

Hormones in the Aetiology of Cancer

1. *Oestrogens and Mammary Cancer.* Oestrogens are powerful growth stimulants of tissues such as the endometrium, the vaginal mucous membrane and the mammary gland, leading to the appearance of mitotic figures and proliferative changes in the epithelium. It would not be surprising therefore if these hormones induced malignant growth as well as benign proliferation. In 1916 Leo Loeb observed that spontaneous mammary cancer occurred in mice and was confined to the female sex. If ovariectomy was performed, however, early in life the incidence of breast cancer was appreciably diminished. Different strains of mice were bred in which the incidence of spontaneous mammary cancer varied considerably. There is, for instance, a cancer-susceptible strain in which about 75 per cent. of the females spontaneously develop mammary cancer, and a cancer-resistant strain in which the incidence is only 2 per cent. In 1928 W. S. Murray showed that transplantation into the males of ovaries from females of a cancer-susceptible strain induced a tendency to malignant changes taking place in the male breast, though curiously enough parabiosis of a female and male of the same cancer-susceptible strain does not. It was not until 1932, however, that Lacassagne was the first to succeed in producing mammary cancer in male mice by administering œstrogens from a very early age and for long periods. The incidence of mammary cancer in these males conformed to that of the spontaneous mammary cancer developing in the females of the same strain.

Thus it seems clear that there are at least two factors concerned in the ætiology of mammary cancer in mice, namely œstrogens and heredity. From the evidence so far considered it might be reasonable to suppose that the only role of œstrogens is to transform the male mammary gland, structurally, into something resembling the female breast, and thus enable the hereditary factor to introduce the malignant tendency.

In mice, at any rate, there appears however to be a third ætiological principle, studied by Bittner in 1941, and referred to as the " milk factor ". It seems that the hereditary tendency to develop spontaneous mammary cancer is handed down to the offspring in the maternal milk. Young mice of a cancer-resistant strain will have a greatly increased tendency to develop mammary cancer if suckled by foster-mothers belonging to a cancer-susceptible strain, and conversely if the foster-mother belongs to a cancer-resistant strain the young mice will tend not to develop mammary cancer in later life, even though they may belong to a cancer-susceptible strain. Whether this milk-factor is confined to mice or plays a part in the ætiology of mammary cancer in other species is not known. Mr. Hedley Atkins has initiated a very long-term study to determine whether the milk factor is concerned with the cause of human breast cancer. He is collecting the names and addresses of girls who were never breast-fed as infants so that some observer of a future generation may determine how many develop cancer of the breast in later life.

It is clear, however, that there is considerable species variation in the incidence of spontaneous breast cancer. Dogs not infrequently develop mammary cancer spontaneously and so may rabbits, especially if they have suffered from pregnancy toxæmia leading to permanent liver damage which prevents the effective conjugation of circulating œstrogens. These species, however, never develop mammary cancer as the result of administration of exogenous œstrogen. The rhesus monkey never develops mammary cancer either spontaneously or following treatment with œstrogen.

The behaviour of rats to exogenous œstrogen is, however, of great importance. Rats never develop spontaneous mammary cancer, but administration of œstrogen can lead to breast cancer. Furthermore, if œstrogen is given intensively over long periods and from an early age to mice of a cancer-resistant strain the incidence of mammary cancer can be increased to 65 per cent. both in females and males of this strain. These observations provide clear proof that in experimental animals œstrogen not only produces structural changes in the male breast which render it liable to the hereditary carcinogenic factor, but that it also has an independent carcinogenic influence. Against this background of experimental animal studies the influence of œstrogen on human breast cancer must be assessed. Carcinoma of the breast occurs quite commonly in women spontaneously, though there is little evidence of a hereditary factor. Is there any evidence that endogenous or exogenous œstrogens increase the tendency to mammary cancer ? Of the women who suffer from carcinoma of the breast five times as many have had a late menopause as those whose menopause occurred between the ages of 40 and 50. Carcinoma of the breast in pregnant women is sometimes characteristically rapidly progressive and even fulminant. Finally, there is the condition of " chronic cystic mastitis " in which the cystic condition is possibly attributable to excessive or prolonged endogenous œstrogen influence. There is considerable evidence that this may be precancerous. This is in contrast to what used to be called " chronic mastitis " in which there is a generalised nodularity of the breasts, often with swelling and tenderness during the premenstrual week. Marked symptomatic relief is often obtained by administration of small doses of androgen such as 10 mg. methyl testosterone daily by mouth given for two months at a time with at least a month's interval between successive courses. This condition is in no way inflammatory, and " mastitis " is a misnomer. It would be more logical to use some such expression as " fibroadenosis " as suggested by Mr. Atkins. There is very little evidence to support the contention that this is a precancerous condition, although it is clearly the result of some abnormal response of the breast tissues to the hormones (œstrogen, progesterone and androgen) which influence mammary development.

There is surprisingly little evidence that œstrogens administered exogenously to women are carcinogenic. A few cases of carcinoma of the breast have been reported following prolonged œstrogen administration, but when one considers the millions of women who have been soused with stilbœstrol, especially during the menopausal years, one cannot but be amazed that there are not many more reports of this nature if exogenous œstrogen is in fact an ætiological factor in human carcinoma of the breast.

2. *Oestrogens and Uterine Cancer.* Rabbits, especially following pregnancy toxæmia resulting in permanent liver damage, may develop endometrial hyperplasia. This corresponds to the cystic glandular hyperplasia which leads to the metropathic hæmorrhage of women who fail to ovulate for long periods of time, so that the endometrium comes under the prolonged influence of endogenous œstrogen. In the rabbit the hyperplasia may proceed to a benign neoplasia and eventually to malignancy. Furthermore, rabbits, when treated with œstrogens occasionally develop cancer of the uterine body.

About 50 per cent. of mice of all strains will develop carcinoma of the cervix if treated with œstrogens for longer than a year. Cancer of the body of the uterus is, however, practically unknown. No evidence has been adduced for the existence of a genetic factor or other carcinogenic agent such as the milk factor, and the cervical cancers are not associated with mammary tumours. In the monkey prolonged administration may produce metaplasia of the cervical epithelium, but this never becomes malignant. In guinea-pigs fibromyomas not only of the uterus but also of subperitoneal tissues throughout the abdomen develop following œstrogen administration, and these tumours may appear on the surface of the alimentary tract, the diaphragm, the liver and the parietal peritoneum. They may be prevented from appearing by the simultaneous administration of progesterone and testosterone. These tumours are not the exact counterpart of human fibroids and there is no evidence that androgens or progesterone are of any value in the treatment of fibroids.

In women cancer of the body of the uterus (and of the breast) is more common in those who experience a late menopause. Furthermore, there seems to be a significant association between carcinoma of the body and endometrial hyperplasia, and the number of reports of patients suffering from granulosa-cell tumour of the ovary and adenocarcinoma of the uterus suggests that the combination is not without significance in view of the relative rarity of granulosa-cell tumours. These tumours, of course, produce continuous and excessive amounts of œstrogen and thereby lead to cystic glandular hyperplasia of the endometrium. With regard to carcinoma of the cervix, its incidence is considerably higher in multiparous than in nulliparous women, and it has been suggested that the continuously high concentration of œstrogen throughout the nine months of each of their pregnancies has rendered the multipara more liable to this carcinogenic tendency.

What are the chances of exogenously administered œstrogen leading to cancer of the cervix ? Here again it is surprising, in view of the millions of women throughout the world who have been treated with œstrogens, sometimes for long periods of time and in unnecessarily high doses, how few reports there are of cervical carcinoma developing after an intensive course of œstrogens. One such report is worth considering, namely that of Gemmell and Jeffcoate who record three cases occurring out of a total of 43 women treated fairly intensively with œstrogens for senile vaginitis. Careful perusal of this report, however, makes it clear that it was published as a warning against promiscuous œstrogen therapy, and that it is difficult to substantiate that the administration of œstrogen and the subsequent development of cervical cancer in these three cases were direct cause and effect.

These studies emphasise the importance of species variation and the dangers of assuming that a species less carefully studied is likely to behave like another which has been submitted to very full experimental investigation. Thus it is utterly unrealistic to argue that because mice, with their relatively short life span, submitted to constant œstrogen exposure for a year or more, develop cancer of the breast or cervix, therefore exogenously administered œstrogens are potentially carcinogenic agents in the human species. Clearly in some species endogenous œstrogen, perhaps in combination with some hereditary factor, must be regarded as a carcinogenic agent, and there are a number of isolated but suggestive observations, such as the association between granulosa-cell tumour and adenocarcinoma of the uterus, which lead one to suppose that endogenous œstrogen may in certain circumstances become a carcinogenic agent and play some part in the ætiology of cancer of the human breast and uterus. It is very much more difficult, however, on the existing evidence, to implicate exogenously administered œstrogen in the subsequent development of mammary or uterine cancer in women. If a consideration of the association between œstrogen and carcinogenesis were to result in œstrogens being used more prudently and less empirically and promiscuously in treatment, then it would be most salutary. It is still not sufficiently widely realised that in the majority of menopausal women the effective daily dose of œstrogen is less than 1 mg. of stilbœstrol, or its equivalent ; that in women throughout the period of menstrual life it is seldom necessary to give more than 3 mg. of stilbœstrol, or its equivalent daily ; that only in exceptional circumstances should œstrogen be administered for longer than three weeks at a time and that at least a week should be allowed to elapse between successive courses. If, however, the bogy of carcinogenesis is to be maintained as an argument to prevent the use of œstrogen then a great disservice will be done to therapeutics, for œstrogen wisely handled in suitable cases has proved to be a most valuable pharmaceutical weapon.

3. *Pituitary Hormones and Malignant Disease.* Though there is little direct evidence that the pituitary is concerned with the development of malignant processes, there are one or two suggestive observations in this connection. In the first place it is of interest that mammary cancer does not occur so readily either spontaneously or after œstrogen administration in mice that have been hypophysectomised early in life, the probable reason being that the mammary glands in these circumstances do not achieve a normal degree of development and therefore escape the hereditary carcinogenic factor or the effect of exogenously administered œstrogen.

The growth-promoting properties of the anterior pituitary growth hormone in many ways resemble those of œstrogen applied to certain selected tissues such as the breast, vagina and uterus, and the influence of growth hormone is also attended by histological evidence of tissue proliferation and formation of mitoses. Indeed, H. M. Evans believes that growth hormone is not only responsible for promoting normal growth, but may in certain circumstances encourage abnormal or malignant growth, at any rate in experimental animals, though there is no evidence that excess of growth hormone is carcinogenic in the human species. Acromegalics are not more prone than normal individuals to develop malignant disease.

There is a curious association between Cushing's syndrome and certain malignant growths. A year or two ago a patient of Dr. Douthwaite's with Cushing's syndrome died and was found to have a carcinoma of the bronchus. At a clinico-pathological meeting at which this case was discussed Dr. Boland referred to a similar case he had been shown at St. Thomas's. Dr. M. G. Thorne has studied these two cases carefully and has also exhaustively scrutinised the literature with the result that he has collected sixteen cases in which Cushing's syndrome has been associated with a malignant tumour. Three of these were carcinomas of the bronchus, nine carcinomas of the thymus and four carcinomas of the pancreas. There is good reason to believe that the association was not fortuitous, and Dr. Thorne has discussed in great detail the possible explanations of the co-existence of the two conditions in a paper shortly to be published in the *Guy's Hospital Reports*. In this connection it is interesting to refer to the work of the late Konrad Dobriner of the Sloane-Kettering Institute for Cancer Research in New York. In an intensive study of the urinary steroid pattern in patients suffering from malignant disease he identified relatively high concentrations of a compound, 11-hydroxyætiocholanolone, which occurred only in two of his normal control subjects. Both these individuals developed malignant disease within three years of the discovery of this compound in their urine, during which time they consistently excreted the compound. The only condition other than malignant disease in which the compound is excreted in the urine in high concentration is Cushing's syndrome.

[*Part II of this Clinical Lecture, which will appear in a subsequent issue of the* GAZETTE, *will deal with the therapeutic use of hormones in malignant disease.*]

GUY'S HOSPITAL DENTAL SOCIETY

The following are the officers and committee of the Dental Society for 1952/53 :—

President :	Professor W. E. Herbert.
Hon. Secretary :	G. Pearson.
Hon. Treasurer :	D. Middleditch.
Asst. Hon. Secretary :	Miss A. F. P. Pountain.
4th Year Representative :	N. J. Cheesman.
3rd Year Representative :	D. J. Baynon.
Lab. Representative No. 1 :	I. M. Briggs.
Lab. Representative No. 2 :	H. D. A. Hope.
Dance Secretary :	J. Cautley.
Dinner Secretary :	J. Cranfield.
B.D.S.A. Representative :	J. Cautley.

Correspondence

Fluorescent Lighting

SIR,—I write to express my thanks to Mr. Frank W. Law, M.A., M.D., F.R.C.S., for his concise exposition on fluorescent illumination in *Guy's Hospital Gazette*, No. 1670, dated 26th June, 1952.

Since his reply, I have made searching enquiries among Air Force officers here regarding the ban of fluorescent lighting by the Air Force, and am told that there is no such order about it. On the contrary, I was informed that there are in use at present fluorescent lights in their hangers, etc., all over India. Hence I regret to say that I was misinformed, and the friend who mentioned it to me could not confirm from where or from whom he obtained this erroneous information.

With my opologies to Mr. Law, and reiterating my thanks to him for his lucid reply.

Yours, etc.,

13, Rest House Road,
Bangalore.

G. E. ALING,
M.R.C.S., L.R.C.P., Major, I.A.M.C.(R.).

The Intern Year

SIR,—In the issue of the *British Medical Journal* of 30th August, on page 481, there appeared an article, " The Intern Year ". It referred to the benefits afforded the young doctor.

It does not follow that a newly qualified man is young. Today there are men in their thirties who served throughout the War in the Armed Forces, not yet qualified, many of whom are married. For them to be compelled " to forego the joys of home life for a year ", as the article so aptly puts it, is a matter which should not be dismissed peremptorily.

Also, " Nearly all newly qualified men already do at least one house job but only about half of them stay for a second." The reason for this, in most cases, is financial. A married man cannot afford to run two homes on £350 a year. Until now, despite the benefits which he knows are to be acquired from further hospital appointments, he is driven to seek better remuneration elsewhere. Unapproved hospital jobs, work in ante-natal clinics, assistantships or locums in general practice or evening surgery, are all now to be denied him.

The pay for the second half of the intern year is at the rate of £400 p.a. This, for a compulsory service, is pitifully inadequate and demonstrates a complete lack of consideration for the older married man who has already devoted six years of his life to his country and another six and a half years in learning his profession to the point of qualifying.

He has not known the joys of home life during this time but he must forego them for another year whether he likes it or not and receive an average weekly wage of £7 with no possibility of augmenting it. If he can prove exceptional hardship he is offered an additional £25 per annum. This is a mockery.

Yours, etc.,

R. M. STEWART.

Reviews

Principles of Full Denture Prosthesis. By E. WILFRED FISH. Fifth Edition. Staples Press. *Price* 21*s.*

This new edition of Fish's well known book is further proof, if that were needed, of its popularity : a popularity which is based on the fact that it supplies information which is clinically useful, which is attractively presented and which is unobtainable elsewhere.

The chapter on " Tongue Space " which was introduced in the last edition and was a very welcome addition, has been enlarged slightly in order to emphasise the importance of this factor in full denture construction.

The printing is excellent and the illustrations have a clarity and directness which is not always found. This is a book which should be read by undergraduates and graduates alike. H.B.F.

Dental Practice Management. By S. L. DRUMMOND-JACKSON. 3rd Edition. Staples Press. *Price* 35*s.*

There can be no doubt that this book has gained general approval, having attained its third edition in four years. One reason may be that it is the only comprehensive work on this subject printed in this country. It has, however, greater merit than this. It is a well printed volume on good quality paper. Mr. Drummond-Jackson has set out his methods boldly and lucidly. It is indeed difficult to find fault with this book. If fault there is, it is that the subject matter is too complete. The chapters on " Advice to denture patients " and " Children " might well have been omitted. The illustrations of demonstration specimens add little information.

The newly qualified will find advice on many problems from partnership agreements to training a secretary ; the more experienced may be stimulated to improve the administration of his practice, and he will certainly find many ideas for criticism, rejection or acceptance. P.D.H.

Atlas of Human Anatomy. By FRANZ FROHSE, MAX BRODEL and LEON SCHLOSSBURG. Allen and Unwin. *Price* 16*s.*

This little book is an attempt at the reproduction in a book of pocket size of the Frohse-Brodel anatomy charts. The result is not altogether successful for whilst the drawings of some parts of the body are clear enough those of other parts, the nervous system for example, are on too small a scale to be of much value. Nevertheless, as a simple introduction to anatomy the book may have an appeal to those whose knowledge need not be too detailed. Z.

Guy's Hospital Biennial Dinner, 1952

FINAL REMINDER

ALL old Guy's men are reminded of the Biennial Dinner which this year will be held at the Connaught Rooms, Great Queen Street, W.C.1, on Friday, October 3rd next, at 7 p.m. for 7.30 p.m. The Chairman is Sir Geoffrey Marshall, K.C.V.O., M.D., F.R.C.P.

Tickets are 25*s.* each (inclusive of tips but exclusive of wine) and may be obtained from the Hon. Secretary, Biennial Dinner, Mr. O. Gayer Morgan, M.Ch., Medical School, Guy's Hospital, telephone HOP 3500, Extension 383.

The list overleaf gives the names of all those who (at the time of going to press) have signified their intention to attend :—

GUY'S HOSPITAL BIENNIAL DINNER, 1952

LIST OF ACCEPTANCES (*at time of going to press*).

1891 Cobb, W. E. S.

1894 Ibotson, E. C. B.

1895 Constable, J. C.

1896 Ormond, A. W.

1899 Berncastle, J. M.

1900 Brydone, J. M.
Camps, P. W. L.

1903 Goldie, E. G.
Reinhold, C. H.

1904 Bromley, J.
Mollison, W. M.

1905 Cameron, H. C.

1906 Johnston, T. B.
Layton, T. B.
Ripman, C. H.

1907 Reynolds, Russell.
Saunders, S. McK.
Watson, J. N.

1908 Crook, A. H.
Ewing, A. W.
Ryffel, J. H.

1909 Lacey, H. C.

1910 Hind, G. R.

1911 Barber, H. W.
Blake, G. A.
Cook, F.
Glendinning, V.

1912 Billing, E.
Dobson-Smyth, W. J.
Genge-Andrews, G. E.
Housden, C. H.
Jepson, A. C.
Marshall, Sir Geoffrey.
Passey, R. D.
Zamora, A. M.

1913 Barrowclough, J.
Bulleid, W. A.
Hancock, A. C.
Morgan, O. G.
Ogilvie, Sir Heneage
Scott, E. D.

1914 Coe, W.

1915 Knott, F. A.
Marston, A. D.
Symonds, Sir Charles

1916 Chapman, P. D. H.
Davies, A. W. A.
Hawkins, C. F.
Heckels, G. W.
Kidman, G. E.
Phillips, E. S.
Pryn, R. H. C.
Whitcombe, D. M. P.

1917 Apergis, H. D.
Bulleid, A.
Conybeare, Sir J. J.

1918 Gill-Carey, C.
James, J.

1919 Braithwaite, J. V.
Gray, St. G. B. D.
Lansdown, R. B.
Sawday, A. E'

1920 Crisp, E. J.
Doherty, W. D.

1921 Braine, J. Carter
Churchill, H. C.
Rogers, A. T.
Shaw, Maurice E.

1922 Andrews, R. C.
Brattle, C. C.
Godden, L. G. J.
Housden, G. McI.
Williams, P. H.

1923 Berry, D. H.
Boland, E. R.
Eckhoff, N. L.
Fouraker, E. H.
Forman, L.
Fawkes, R. B.
Hitchings, D. B.
Housden, L. G.
Hooper, K.
Lane, R. E.
Lloyd, N. L.
Orsmond, E.
Vaughan, D.
Whitlock, D. B.

1924 Cann, R. J.
Fripp, A. T.
Hammond-Williams, D.
Hayton-Williams, D. S.
Hewlitt, E. F.
Houghton, L. Wynn
Hart, M. C.
Parsons, K. O.
Pearson, R. S. Bruce.
Scholefield, B. G.
Spurrell, W. R.
Sears, W. Gordon

1924 Trott, L. A. S.
Westlake, H. J. W. J.
Williams, H. Keith
Withers, S. A.

1925 Blacker, C. P.
Clemmey, A. V.
Collier, H. N.
Ford, G. R.
Gough, A. S.
Hawkins, B. E.
Jago, M. E. M.
Riddolls, A. W.
Worthington, C. J.

1926 Allen, C.
Brock, R. C.
Greenwood, E. J.
Grasby, E. D. Y.
Law, F. W.
Martin, J. N.
Marshall, C. W.
Pye-Smith, E. J.
Theis, S. G.
Weston, J. G.
Wiseman, J.

1927 Abrahams, S.
Clayton-Jones, E.
Dunmill, D. E.
Ellis, David
Graff, E. L.
Heely, W. J.
Hudson, E. H.
Hudson, W. F.
McConnell, W. S.

1928 Blaikley, J. B.
Camps, F. E.
Cohen, S. M.
Digby, W. L. M.
Harley, H. N. W.
Jones, W. D. Glyn
O'Sullivan, W. J.
Stamm, T. T.

1929 Clogg, D. S.
Malone, C. D.
Morris, I. B.
Scorer, S. A.
Smallshaw, D. B.
Wheeler, S. J.

1930 Day, P. T. L.
Plummer, N. S.
Robertson, J. M.
Schofield, J. B.
Wood, C. E. R.

1931 Batchelor, J. S.
Berkley, E. A. R.
Bradbeer, W. H.
Constable, H. A.
Darke, C. S.
Hughes, W.
Lewis, A. J. D.
Muirhead, H. C.
Rutter, C.
Sutcliffe, R. B.
Scantlebrey, W. K.

1932 Atkins, H. J. B.
Baker, C. G.
Clarke, C. Astley
Constad, V.
Ellis, G. G.
Elven, R. T.
Irish, D. H.
Knight, R. Gavin.
Lewis, Walter
Lewis, Windsor.
Miller, G. A.
Morgan, Guy.
Reid, R. G.
Stamm, W. P.
Treble, H. A.

1933 Falconer, M. A.
Holling, H. E.
Johnson, A. G.
Kilpatrick, F. R.
Lindsey, M. J.
Potts, A. G.
Pugh-Jones, E.
Robin, I. G.
Steele-Perkins, G.
Thomas, C. V.
Thurston, G. L. B.
Zorab, E. C.

1934 Davies, D. A.
Fowler, W. T.
King, D. P.
Littleton, W. J.
Mansie, J. W.
Pantin, C. G.
Wass, S. H.
Wilson, G.

1935 Blackburn, G.
Clarkson, P. W.
Cope, R. W.
Forbes, J. R.
Forrester, N. L.
Kauntze, R.
Kett, R. G.
Lake, F. B.
Lee, F. H.
Lillicrap, C. A.
Mann, W. N.
Mayer, J. H.
Osborne, S. E.
Ponder, A.

1936 Brown, J. M.
Harley, H. R. S.
Hill, A. G. W.
Shire, T. H.

1937 Gardiner, A. P.
Hills, T. H.
Russell, W. R.
Zorab, W. G.

1938 Watson, J. S. F.

1939 French, J. M.
Glover, F. N.
McCall, A. M.
Hawkins, C. F.
Houston, J. C.
MacLean, K. S.
Shearman, W. A.
Smith, E.
Turner, C. W.

1940 Cox, A. G. C.
Crawford, J. P.
Flitcroft, J. H.
Gordon, J.
Guerrier, H. P.
Hinde, R. T.
Horan, D. G.
Johnson, B. D.
Zorab, K. A.

1941 Joyce, H. L.
Manning, F. R. C.
Ogilvie, J. P. H.
Palmer, M. S. M.
Ripman, H. A.
Sechiari, G. P.
Vulliamy, D. G.

1942 Hind, A. W.
Lewis, T. L. T.
Munden, J. M.
Orr, D. S.
Wilks, M.

1943 Carnegie, D. M.
Evans, G. M.

1944 Benton, S. G.
Cole, S. N.
Fabricius, J. M.
Irvine, R. E.
Kent, J. V.

1945 Ruben, C. M.
Reinhold, J. D. L.
Rudman, D. J.
Shaw, A. Batty
Thorne, M. G.

1946 Balfour-Lynn, S.
Bulleid, J. A.
Finnegan, T. R. L.
Evans, W. E. D.
Gurassa, W. P.
Haas, L.
Nicholson, N. G.
Symonds, B.

1947 Davies, D. O.
Heber, A. J.
Johns, S. A.
Parker, J. A. R.
Palmer, J. Morton
Wilson, P.

1948 Craigen, A. A.
Higgins, C. A.
Keable-Elliott, R. A.

1949 McGuire, E. S.
Poole, P. B.

1950 Johnston, I. G.
Wood, N. J.

1951 Dobson-Smyth, W. G.
Zorab, P. A.
Thornton, A.

Sport

LAWN TENNIS

United Hospitals' Singles Championship

Won by P. Frost.

The President of the Tennis Club, Mr. Guy Blackburn, has kindly offered to present medals to the winners of the Blackburn and Lane-Washbourne Cups, commencing from this year.

Lane-Washbourne Cup (Singles)

P. Frost defeated J. Bullard in the final 6–1, 6–3.

Blackburn Cup (Doubles)

F. A. F. Biddle and J. Bullard defeated Mr. P. Counsell and I. Kelsey Fry in the final 6–2, 6–3.

Hospital Information, etc.

UNIVERSITY OF LONDON

REPRESENTATIVES ON GOVERNING BODIES

General Council of Medical Education and Registration of the U.K. :

Dr. E. R. Boland, C.B.E., M.D., F.R.C.P.

Guy's Hospital Medical School :

Mr. P. H. Mitchiner, C.B., C.B.E., M.S., F.R.C.S.
Professor Sir James Paterson Ross, K.C.V.O., F.R.C.S.

St. George's Hospital Medical School :

Mr. E. G. Slesinger, O.B.E., M.S., F.R.C.S.

SOCIETY OF APOTHECARIES OF LONDON

LIVERY

At the August meeting of the Society the following were elected to the Livery :

E. R. Boland — E. J. Crisp
H. B. O. Cardew — Sir Geoffrey Marshall

FREEDOM

The following were elected to the Freedom of the Society :

By Servitude, J. A. Whillis.

By Redemption, D. P. King.

UNIVERSITY OF LONDON

EXAMINERS

M.D.S. Examinations 1952 *and* 1953

Prof. W. E. Herbert (Chairman) — Prof. M. A. Rushton
Mr. R. E. Rix — Mr. G. T. Hankey

Second Examination in Dental Surgery

Medicine : C. G. Baker (Chairman).

Surgery : N. L. Eckhoff (Chairman).

Pathology and Bacteriology : M. A. Rushton (Chairman).

Dental Surgery (including Special Pathology) : F. S. Warner (to act if more than 50 candidates enter).

Orthodontics : K. E. Pringle (to act if more than 50 candidates enter).

Second Examination in Veterinary Anatomy : Veterinary Physiology :

G. A. D. Haslewood

RECOGNITION OF TEACHERS

G. J. Parfitt, F.D.S., has been recognised as Teacher of Dental Surgery (Preventive Dentistry) at the Institute of Dental Surgery.

APPOINTMENTS VACANT

GUY'S HOSPITAL

Applications are invited for a Whole-time **Research Studentship** at **Guy's Hospital,** to carry out physiological and clinical investigations into congenital heart disease. Salary £550 to £750 per annum according to experience. Duties to commence as soon as possible after **1st October, 1952.** Applications, giving the names of two referees, to be sent to the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, *not later than* **27th September, 1952.**

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL

Southwark Bridge Road, London, S.E.1

Applications are invited for the post of **House Surgeon** vacant on the **1st November, 1952** (second or third post). The duty for the first two months will be in the Casualty Out-Patients' Department. The post is tenable for a period of six months and is recognised for the D.C.H. Salary at the rate of £400 or £450 a year according to experience, with a deduction at the rate of £100 a year for residential emoluments.

Applications, stating age, nationality, qualifications (with dates) and accompanied by copies of three recent testimonials, should reach the Hospital Secretary by the first post on ***Thursday, 9th October, 1952.***

APPOINTMENTS

K. L. Wilson, M.A., F.R.C.S., D.L.O., Consultant Surgeon, Throat and Ear Departments, Lewisham, Woolwich and Greenwich Hospital Groups, from October 1st, 1952.

J. C. Bulstrode, M.R.C.S., D.M.R., Consultant Radiologist, Princess Elizabeth Hospital, Guernsey.

UNIVERSITY OF CAMBRIDGE

Doctor of Medicine

J. S. Pegum

PASS LIST

SOCIETY OF APOTHECARIES OF LONDON

Final Examination
August, 1952

Surgery

*J. K. H. Culverhouse — S. C. C. Scott
*P. M. Hardiman — E. McK. Sycamore
J. S. Norell

Pathology, Bacteriology and Forensic Medicine

J. K. Blackwell — E. McK. Sycamore
Mrs. N. M. Page

Medicine

*L. J. Bishop — *J. K. H. Culverhouse
J. K. Blackwell — J. G. Lymberry

Midwifery

Miss L. P. D. Bellam — R. G. Jones
Miss A. Booth — D. J. Waller

* Have completed the examination.

PAPERS BY GUY'S MEN

Baker, Charles G. Smoking. *J. Canad. dent. Ass.*, 1952, **18** 474.

Batchelor, J. S. Fractures of the Femoral Neck. *Med. Pr.*, 1952, **228,** 222.

Baylis, J. H., Joseph, J., Mackintosh, Janet, Morgan, R.S., and Wright, G. Payling. The Effect of Transection on the Ascent of Tetanus in the Rabbit's Spinal Cord. *J. Path. Bact.*, 1952, **64,** 47.

Bowen-Davies, A. Ménièrès Disease. *Med. Pr.*, 1952, **228,** 198.

Brock, R. C. Direct Cardiac Surgery in the Treatment of Congenital Pulmonary Stenosis. *Ann. Surg.*, 1952, **136,** 63.

Campbell, A. M. G. Neurological Complications Associated with Insecticides and Fungicides. *Brit. med. J.*, 1952, ii, 415.

Clarke, C. A., and another. Nutritional Neuropathy in Prisoners-of-War Repatriated from Hong Kong: A Follow-up. *Lancet*, 1952, ii, 113.

Clarke, Ruscoe. On the Prevention and Treatment of Shock and Anæmia in Civilian Trauma. (Arris and Gale Lecture). *Ann. R. Coll. Surg. Engl.*, 1952, **11,** 87.

Cook, Frank. Diagnosis and Modern Treatment of Carcinoma of the Body of the Uterus. *Med. Pr.*, 1952, **228,** 181.

De Mowbray, R. R., and Tickner, A. The Diagnostic Value of Estimations of Protein-bound Iodine in Serum. *Lancet*, 1952, ii, 511.

Enticknap, J. B. The Condition of the Kidneys in Salt-losing Nephritis. *Lancet*, 1952, ii, 458.

Fourman, Paul, and another. Experimental Depletion of Potassium in Man. *Lancet*, 1952, ii, 368.

French, E. B. Bleeding Gums. *Practitioner*, 1952, **169,** 299.

Graham, A. J. P. The Present Status of Cardiac Surgery. *Postgrad. med. J.*, 1952, **28,** 477.

Hammond, Geoffrey T. An Inquiry into the Treatment of Postpartum Hæmorrhage. *J. Obstet. Gynæc. Brit. Emp.*, 1952, **59,** 493.

Hawkins, C. F. Impressions of Post-graduate Education in America. *Brit. med. J.*, 1952, ii, 464.

Holling, H. E. Compensatory Mechanisms for the Anoxia of Cyanotic Congenital Heart Disease. *Clin. Sci.*, 1952, **11,** 283.

Holms, Selwyn. The Control and Use of the Atomised Handpiece-Spray. *Brit. dent. J.*, 1952, **93,** 17.

Hunt, J. N., and Macdonald, I. The Relation between the Volume of a Test Meal and the Gastric Secretory Response. *J. Physiol.*, 1952, **117,** 289.

Joiner, C. L., and Thorne, M.G. Salt-losing Nephritis. *Lancet*, 1952, ii, 454.

Jones, J. Spencer. A New Contrast Medium for Bronchography. *Brit. J. Tuberc.*, 1952, **46,** 168.

Jones, J. Spencer. Spontaneous Pneumothorax resulting from Pneumoperitoneum Therapy. *Brit. J. Tuberc.*, 1952, **46,** 30.

Joseph, J., and Nightingale, A. Electromyography of Muscles of Posture: Leg Muscles in Males. *J. Physiol.*, 1952, **117,** 484.

Loader, G. S. The Dental Health Exhibition. *Dent. Mag. Lond.*, 1952, **69,** 294.

Luder, J. The Value of Electromyography in Pædiatrics. *Gt. Ormond Street J.*, 1952, No. 3, June.

McKeown, Thomas, and others. Fœtal and Infant Mortality in Multiple Pregnancy. *J. Obstet. Gynæc. Brit. Emp.*, 1952, **59,** 471.

McKeown, Thomas, and another. Observations on all Births (23,970) in Birmingham, 1947. VII. Effect of Changing Family Size on Infant Mortality. *Brit. J. Soc. Med.*, 1952, **6,** 183.

Macrae-Gibson, N. K. Red Linea Disease. *Brit. J. Dermat.*, 1952, **64,** 315.

Robson, J. M., and Lewis, T. L. T. Ergot and its Derivatives in Clinical Practice. *Practitioner*, 1952, **169,** 294.

Shaw, A. Batty. Spontaneous Pneumothorax from Secondary Sarcoma of Lung. *Brompton Hosp. Rep.*, 1951, **20,** 172.

Shaw, A. Batty. Tuberculosis in Medical and Dental Students. *Lancet*, 1952, ii, 400.

Spurrell, W. R. Precision. *Physiotherapy*, 1952, **38,** 159.

Stack, Maurice V. Dental Caries. *Dent. Mag. Lond.*, 1952, **69,** 303.

Stevenson, F. Harwood. The Osteoporosis of Immobilisation in Recumbency. *J. Bone Jt. Surg.*, 1952, **34b,** 256.

Symonds, Sir Charles P. Fits and Faints. (An address). *Gen. Practitioner*, 1952, **23,** 188.

Toussaint, C. H. C. Research in Tuberculosis. *Med. Pr.*, 1952, **228,** 257.

Warner, E. C., and another. Nutrition in Liver Disease. *Brit. Encycl. Med. Pract., Int. Suppl.* 120, September, 1952.

White, R. H. R. Acute Suppurative Parotitis in the Newborn. *Brit. med. J.*, 1952, i, 1232.

Witts, L. J., and another. The Utilisation of Folic Acid given by Mouth. *Clin. Sci.*, 1952, **11,** 273.

CHANGES OF ADDRESS

P. J. Hill, L.D.S., 45, Berkeley Court, Baker Street, London, W.1.

F. J. Russell Stoneham, "Merryacre", Cherry Tree Road, Farnham Royal, Bucks. Tel.: Farnham Common 108.

BIRTHS

BURT.—On 11th August, 1952, at 46, Laurel Road, Lowestoft, to Mary (née White), wife of John R. Burt, L.D.S., R.C.S.—a second son (Paul Andrew).

DAW.—On 3rd September, 1952, at 12, Silchester Road, London, W.10, to Sheila (née Penrose) wife of Geoffrey Daw—a second son (Patrick).

FULLER.—On 26th August, 1952, at Sanderstead, to Sheila Valerie (née Cox), wife of James Fuller, L.D.S.—a sister for Hugh (Celia Joy).

MACDONALD.—On 14th July, 1952, at Nuffield House, to Norrie (née Cussen), wife of Ian Macdonald, M.B., B.S.—a brother for Graham (Peter).

MUNRO.—On 6th September, 1952, at Crayford, Kent, to Olive, wife of Ian Munro, M.B.—a daughter (Alexandra Jane).

WHAITES.—On 24th August, 1952, at Salisbury, Southern Rhodesia, to Dickie (née Berrington), wife of Charles Whaites B.D.S., L.D.S., R.C.S.—a daughter (Pauline).

MARRIAGES

POLLOCK—SURTEES.—On 15th August, 1952, at Preston, John Alan Pollock to Diana Mary Surtees.

PARSON—BOWER.—On 19th August, 1952, at Hampstead, Joseph Victor Parson to Roxana Caroline Bower.

WILKINSON—BURNES.—On 23rd August, 1952, at Bearsted, Alan Wilkinson to Marian Aileen Burnes.

DEATH

ROBINSON.—On 2nd September, 1952, at the Residential Club, East Grinstead, William Edward Robinson, M.D.(Oxon.), M.R.C.P., of the Vicarage, Bolney, Sussex, aged 82.

EDS. { E.E.D.T / R.D.W.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1675 *4th October* 1952 *One Shilling*

PASSIM

AT the beginning of a new academic year we extend a warm welcome to all those, whether staff or students, who join us at Guy's Hospital. On another page there is a list of new students in the Medical and Dental Schools, but no one, having entered Guy's, is " just a name on a list " any more. He or she becomes immediately a member of a great family.

The change from school to university life—and most of our new students come to us from school—is a dramatic and salutary one. Seniority at school carries with it a measure of responsibility, a taste of authority, and an easy confidence bred from years of familiarity with a well recognised system. Over night, as it were, all this is changed. Entering a university, and in particular a great medical school and teaching hospital, is an experience in self-deflation. The surroundings are strange. The faces are strange. Seniors become juniors again. Divested at once of the familiar trappings of school life modesty (but not ignorance) is at a premium. The newcomer is forced to ask about the simplest things ; even the way home at the end of the day. There is no one at Guy's who knows all the answers. But some of us know some of the answers some of the time, and what we learn in the pursuit of our calling is available to all—for the asking.

Those who enter Guy's this year, those whom they join at work there, those who leave to carry this tradition to distant parts, have more in common than a membership grouped under the name of a beneficent founder. They share a common ideal : the relief of distress of body and mind. Seen in this light even the most inconspicuous " name on a list " may feel confident that he can contribute his share too, for the Guy's men and women of today are Humanity's men and women of tomorrow. These are trite phrases which have been often repeated. They lose nothing by such repetition at the beginning of a new academic year. Faced with human problems one is always a new boy who must, as each individual case presents itself, learn to find the way home.

Major-General John Hay Beith, C.B.E., M.C., who died on September 22nd, was most widely known as "Ian Hay" the playwright. His death is a matter of particular regret at Guy's, for he was a member of the Board of Governors of the Hospital for nearly 25 years.

Professor Everett Idris Evans, who is giving a clinical lecture on October 7th, is Chairman of the Burns Committee of the National Research Council of the United States, and Director of the Research Programme connected with the Atomic Advancement arrangements there. He has been invited to this country to give a Hunterian lecture.

We congratulate Dr. W. J. R. Calvert (who, until his retirement last year, was a Senior Lecturer in the Department of Physics) on his election by the Warren Committee of the Royal Society to a research appointment tenable at Queen Mary College for work on high voltage phenomena.

Captain Trevor Hart, R.A.M.C., whose bravery after being wounded on the Korean front has been widely reported in the press, was a House Surgeon at Guy's and at Orpington Hospitals between June 1950, and May 1951. We wish him a speedy return to health and activity.

After 13 years as Sister in charge of Operating Theatres at Guy's, Sister Dorothy Smith is leaving on October 6th to get married.

Sister Smith, whose cheerful friendliness has endeared her to staff and students alike, will be remembered for her many good qualities, among them particularly the ever ready co-operation she gave to all with whom she worked. Nothing was too much trouble even under the most trying conditions. We wish her many years of great happiness.

We regret to announce the sudden death on the 6th September of Arthur Owen, Foreman Painter to Guy's Hospital.

Mr. Owen, who had himself completed 21 years' service to the hospital, came from a family which has held the office of Foreman Painter for over 40 years.

October		ACADEMIC
		Exhibition. Surgical Department. "The Knee."
6th	1.00.	Dr. Craft. Clinical Lecture. "Surgical Amputations and the Treatment of Amputations."
	5.00.	Mr. Brock's film, "Pulmonary Valvotomy."
7th	1.00.	Professor Everett Idris Evans. Clinical Lecture. "The Stress Reaction in Burns."
8th	5.00.	Dr. S. J. de Navasquez. Lecture. "Renal Infection."
9th	1.00.	Mr. Lawrie. Clinical Lecture.
	5.00.	X-ray Meeting. Gordon Museum.
	5.00.	Mr. Murray Falconer. Neurosurgical Demonstration.
10th	1.00.	Dr. Boland. Clinical Lecture.
	2.15.	Department of Medicine. Combined Round. Pre-clinical classroom.
11th	10.00.	Sir Heneage Ogilvie. Departmental Round.
13th	1.00.	Mr. Brock. Clinical Lecture. "The Practical Importance of Bronchial Anatomy."
15th	5.00.	Dr. W. H. Merivale. Lecture.
16th	1.00.	Mr. Eckhoff. Clinical Lecture.
	5.00.	X-ray Meeting. Gordon Museum.
17th	2.15.	Department of Medicine. Combined Round. Pre-clinical classroom.
20th	1.00.	Mr. Clarkson. Clinical Lecture. "Bad Scars and Keloids."

October		GENERAL
7th	4.30.	Annual General Meeting. Pupils' Physical Society. Anatomy Theatre.
16th	5.30.	Inaugural Meeting. Guy's Hospital Motoring Club.
17th	1.15.	Eve of St. Luke's Day Service. Southwark Cathedral.

Hormones and Cancer

By P. M. F. BISHOP, D.M., M.R.C.P.

A Clinical Lecture delivered in the Medical School, Guy's Hospital, on 6th May, 1952

PART II

Hormones in the Treatment of Cancer

IN the first part of the lecture the role of hormones in the development of neoplasms was discussed. In this second part it is proposed to examine the claims that have been made for the alleviation of malignant disease by hormone therapy. So far these claims have been confined to carcinoma of the prostate and breast.

Carcinoma of the Prostate

Historical. An association between the testis and the prostate has been recognised since the time of Harvey who observed that both these glands showed signs of atrophy in the hibernating hedgehog. The credit for suggesting castration and œstrogen administration in the treatment of prostatic cancer is due to Charles Huggins of Chicago (1941). The suggestion was based on a long series of studies on the prostate of the dog, as the result of which it was shown that the glandular tissue of the prostate was under the influence of androgens, and that increased prostatic activity was associated with increased production of acid phosphatase. Administration of androgens to a number of men suffering from prostatic cancer stimulated the tumour to grow with a rise in the serum acid phosphatase level, whereas removal of the testes or administration of œstrogen frequently led to diminished growth of the tumour.

Acid and Alkaline Phosphatase. *Acid phosphatase* is elaborated by the mature prostatic epithelium. It is found in negligible quantities in the prostate of the infant, but after puberty it begins to appear in increasing amounts, and reflects the activity of the glandular epithelium, so that its concentration in the gland is considerably increased in carcinoma of the prostate. Nevertheless the serum acid phosphatase level is the same in the normal adult male as it is in the woman, who has no gland comparable to the prostate which can elaborate large amounts of this hormone. Thus the intact fibrous capsule of the prostate must serve as a barrier to prevent acid phosphatase from reaching the general circulation. In prostatic cancer, however, when the neoplasm invades the capsule, and when metastases have developed, acid phosphatase enters the general blood stream in high concentration and the serum acid phosphatase level is raised. Thus an estimation of this enzyme in blood will indicate whether the neoplasm is locally confined and therefore is possibly capable of complete removal by radical prostatectomy, or whether the malignant process has extended beyond the gland, and may therefore require some more generalised form of treatment such as orchidectomy or œstrogen therapy. The normal level of serum acid phosphatase is below 2·5 King-Armstrong units. *Alkaline phosphatase* is the enzyme which ensures a local concentration of phosphate ions leading to precipitation of calcium phosphate to form new bone. It has been suggested that the enzyme is elaborated by the osteoblasts. A raised serum alkaline phosphatase level therefore indicates increased osteoblastic activity and consequently osteogenesis. When metastases develop in bone, the normal bone structure is replaced by the neoplastic deposits so that rarefaction or cyst formation takes place. This stimulates the osteoblasts to try to lay down fresh bone and consequently there may be a rise in the serum alkaline phosphatase. Furthermore, should regeneration of bone occur as the result of disappearance of the osseous metastases there will be an increase in the serum alkaline phosphatase reflecting the excessive osteoblastic activity which led to the replacement of the bony secondaries with normal bone. A three- to five-fold rise of serum alkaline phosphatase therefore can be taken as an indication of healing of the bony lesions. The normal serum alkaline phosphatase level is 3·5 to 13·5 King-Armstrong units, or 3 to 5 Bodansky units.

Rationale of Endocrine Therapy. It has been pointed out that Huggins arrived at the principle of castration or œstrogen treatment for prostatic cancer by careful studies of the relationship between the sex hormones and the prostate gland in dogs. He found that increased prostatic activity was associated with increased acid phosphatase and increased stimulation of the gland by androgen. Exogenous administration of androgen further increased prostatic activity and acid phosphatase formation, and in men with prostatic cancer androgen administration led to accelerated growth of the tumour. It seemed rational to him, therefore, to remove an obvious source of androgen production, namely the testes, or to institute " anti-androgenic control " of the neoplasm by administration of œstrogen. This might come about either on account of the inhibition of gonadotrophic activity of the pituitary thus removing the stimulus for androgen formation by the testis, or there might be a direct anti-androgenic effect of œstrogen. Castration, however, did not remove all sources of androgen production, and this might explain why many cases of prostatic cancer did not respond satisfactorily to orchidectomy, for the adrenal cortex may also be a source of androgen production. For this reason Huggins, in a small number of cases, went so far as to perform total bilateral adrenalectomy as well as castration, a heroic procedure in the days before cortisone was available, and indeed one which not surprisingly proved fatal in each of this small series of cases. It is clear that both castration and œstrogen administration may have more complex effects in " altering the hormonal balance " of the organism, than the simple effect of removing one source of androgen or neutralising its effect on the prostate. Indeed, that the action of œstrogen is not merely "anti-androgenic" is suggested by the recent observations of Brendler that cases with extensive prostatic cancer which do not respond to œstrogen may show clinical improvement with androgen. For the moment, however, these more simple explanations will suffice and we shall return to this problem of the mechanism of hormone therapy when the treatment of breast cancer is considered, for other factors, such as the varying response of women of different age groups to œstrogen, will call for an explanation.

Choice of Treatment of Prostatic Cancer. It cannot be too strongly emphasised that castration and hormone therapy are not alternatives to removal of the tumour, but that it is only justifiable to consider them when the surgeon has reluctantly concluded that the neoplasm has extended beyond the confines of the gland and therefore cannot be completely excised by *radical prostatectomy*, or that metastases have developed. Here the serum acid phosphatase estimation will be of great assistance for if it is appreciably raised it indicates that the growth is no longer confined to the gland.

Radical prostatectomy having been seriously considered and rejected the choice lies between castration and œstrogen therapy or both combined. The earlier reports favour *castration*, and indeed glowing accounts are available of the miraculous improvement produced, such as the following quotation from Dean, Woodard and Twombly : " In our experience, surgical castration almost invariably has given prompt relief to patients with prostatic cancer. The improvement of patients with hopelessly far-advanced disease is one of the most spectacular changes to be observed in clinical medicine. In no case did we withhold orchidectomy because of advanced disease, although many patients seemed near death at the time of the operation. In a number of instances patients had been confined to bed for months because of pain due to metastases. Frequently they had acquired serious contractures of their lower limbs. It was surprising, but not at all unusual, to see these individuals learning to walk within a few days of operation. Almost without exception pain disappeared within forty-eight hours . . . Appetites became remarkably good, body weight increased rapidly, strength returned, and a large proportion of the men resumed their former occupations and could engage actively in sports. Regression in the size of metastases to soft parts was prompt. Large suprapubic masses, proved cancerous by biopsy, completely disappeared within two weeks of castration."

As more experience has been gained with œstrogen there is a greater tendency to prefer this method of treatment to orchidectomy because the impression is

gaining ground that relapses occur less frequently with endocrine therapy. Indeed, McCullagh in a recent review goes so far as to say that œstrogen has largely supplanted castration. The effects of endocrine treatment are slower to appear than those of orchidectomy but they may be equally dramatic. Some observers are in favour of combining orchidectomy and œstrogen, especially where metastases are present, whereas others withhold castration until œstrogen no longer controls the condition. Yet others castrate first and reserve œstrogens until a relapse occurs. At the present moment one cannot be dogmatic about the relative merits of the two methods or a combination of both.

Bilateral adrenalectomy was attempted by Huggins at a time when there was no effective substitution therapy for the life-maintaining properties of the adrenal cortex, and his patients naturally died almost immediately. With cortisone (and deoxycorticosterone) now available this procedure must be reconsidered as a serious possibility, though one would hesitate to agree with Huggins that " adrenalectomy in man is now no more serious an operation than, say, cholecystectomy." He has a recent series of seven cases of prostatic cancer. All the patients had far-advanced metastatic tumours, and had escaped control from anti-androgenic measures and have been studied for at least five months since adrenalectomy. One patient died within 24 hours of the operation and another died of acute pulmonary œdema. Four of the five remaining patients showed " some improvement ". It will be seen therefore that adrenalectomy for prostatic cancer is still very experimental.

Oestrogen Therapy. Stilbœstrol has been the œstrogen most commonly employed, though dienœstrol (which is probably only a quarter as potent) was used in some of the earlier trials. The synthetic œstrogen is usually administered daily by mouth, though it would seem to me that there is a real danger of the patient discontinuing treatment as soon as he feels better and failing to report to his doctor again until a serious degree of relapse has occurred, and that therefore subcutaneous implantation of stilbœstrol, or better still œstradiol pellets, would be of advantage. A 100 mg. pellet of stilbœstrol remains effective for three to five months, whereas a similar pellet of œstradiol lasts a year to 18 months. *Dosage* seems still to be quite arbitrary, but has varied considerably from one school to another. There seems to be a tendency in this country to give massive doses, and 50 mg. or more of stilbœstrol daily has not been considered unusual. There is little evidence however that such massive doses are necessary. Huggins believed that 0·25 mg. to 0·3 mg. daily represented a minimal effective dose. One can often get evidence that such doses may delay or even inhibit ovulation by suppressing gonadotrophin secretion in normal women, and an implant of two 100 mg. pellets will suppress erections and libido and produce well-marked gynæcomastia in young men. However, there is probably no harm in giving higher doses and 15 mg. daily would seem reasonable.

Toxic *side effects* such as nausea, salt retention or hypercalcæmia seldom occur with reasonable doses. Impotence, testicular atrophy and gynæcomastia are, however, invariable, the testicular damage being obligatory to the treatment, though the gynæcomastia is sometimes hardly noticeable. On the other hand the breasts may become tense and painful. Some degree of pigmentation of the nipple is usually seen. Though almost all the patients show some initial improvement which may be dramatic, as already indicated relapse is frequent and may occur within six months. Heroic increase in dosage, up to 1 gm. daily, or orchidectomy, if it has not already been performed, may be considered, though the majority of patients pursue an inexorable course to death. Huggins believes these relapses may be due to the establishment of the adrenal cortex as an extra-gonadal source of excessive androgen formation, or that certain of the malignant cells are able to flourish in the absence of androgen. In a small number of patients however, (from 10 to 20 per cent. perhaps) relapse does not occur early and they may continue to enjoy their renewed health and well-being for many months or even years, though eventually they usually succumb to the effects of the reawakened activity of the growth and the reappearance of metastases.

Occasionally one reads of a case concerning which one may even dare to whisper the magic word " cure ". Such a case is reported by Dean and his colleagues. The cancer was diagnosed histologically and the patient was treated with stilbœstrol and showed no evidence of an active neoplasm for four years. He then died of a coronary thrombosis. Although serial sections of the prostatic region were carefully examined there was no microscopic evidence of cancer.

Carcinoma of the Breast

Historical. In 1896 Sir George Beatson removed both ovaries in a young woman with a recurrent mammary cancer following an attempted radical extirpation. Eight months after the oöphotectomy all traces of the carcinoma had disappeared. During the next few years this operation became fashionable and relief of symptoms of the neoplasm was recorded in about 30% of cases. However, the operation in due course went out of fashion, possibly on account of a famous law-suit in which a patient, who was not suffering from carcinoma of the breast, claimed damages from a surgeon for removing both her ovaries. In modern times hormone therapy cannot be said to have been conceived on an empirical basis. Haddow in 1935 showed that certain carcinogenic hydrocarbons possessing slight œstrogenic activity retarded the growth of malignant tissues. Lacassagne and others later associated œstrogens with the development of mammary cancer in experimental animals, nevertheless his original observations and the reports of Huggins's earlier trials of œstrogen in prostatic cancer encouraged Haddow in 1944 to regard œstrogen therapy in malignant disease as " of considerable fundamental interest and an incentive to further investigation ". In the meantime Loeser in 1939 had treated four cases of carcinoma of the breast with testosterone in an attempt to counteract the " excess of œstrogenic substance " which he considered to be a factor in producing this neoplasm. From then onwards sporadic case reports appeared in the literature, most of which were received with a good deal of scepticism.

By 1944 the emphasis had switched from androgen back to œstrogen and at a symposium held at the Royal Society of Medicine 168 cases of mammary cancer treated with ovarian hormone were reported upon. From this meeting emerged a joint committee of the Royal Society of Medicine and the British Empire Cancer Campaign to organise and encourage observations and standardise records of further cases treated with hormones. Once again interest in androgenic therapy was aroused by the studies of Adair and his colleagues in New York in 1946. By 1947 the Therapeutic Trials Committee of the Council on Pharmacy and Chemistry of the American Medical Association was organising a large-scale trial using œstrogen and androgen, and in 1949 a conference was held of all workers taking part in these trials. In December 1949 the British Empire Cancer Campaign organised a conference on cancer of the breast in which a session was devoted to endocrine therapy. The American Medical Association committee reported again in 1951, this time on a total of 886 cases, and in addition to this, various other observers such as Frank Ellis in this country and Ira Nathanson in the United States have recorded their results, so that it is possible now to give judgment on the reports of about 1000 published cases.

Rationale of Endocrine Therapy. The mode of action of œstrogen and castration has already been discussed in considering the treatment of prostatic cancer, and it was concluded that the carcinogenic tendency was either removed by castration and possibly adrenalectomy or neutralised by œstrogen. It is not clear that œstrogens act by virtue of their œstrogenic activity *per se*, but the fact that their therapeutic effects in cancer are limited to tumours associated with the reproductive system (prostate and breast) suggests that this may be the case. There is no evidence that œstrogens are general inhibitors of tumour growth comparable with X-rays. Indeed, it was pointed out in the first part of this lecture that œstrogen is a " proliferative " hormone. It will be seen in the subsequent discussion that both œstrogens and androgens have proved of value in the treatment of postmenopausal cases of breast cancer. After the menopause there is excessive production of pituitary gonadotrophins,

and it is therefore conceivable that the gonadal hormones may exert their beneficial effect at this time by suppressing pituitary activity. What emerges most strikingly from the study of the effects of gonadal hormones at different ages, however, is that œstrogens may accelerate the growth of breast cancer in premenopausal or menopausal women and are only safe to use some years after the menopause. On the other hand androgens are occasionally beneficial in premenopausal cases.

Thus the present tendency is to attribute the effect of gonadal hormones to their ability to change the endogenous endocrine " environment ", so that in prostatic cancer œstrogens or castration alter the predominantly androgenic background, and in mammary cancer androgens may change the œstrogenic environment during the premenopausal years, and œstrogens, or androgens, may upset the " neuter " environment of the postmenopausal woman. It may be that the therapeutic hormone is effective by actually creating a hormonal imbalance. It is a fact, for instance, that the incidence of bone metastases is least during the ages of 40 to 55, the years of the natural menopause. This may be due to a hormonal imbalance, associated with the waning activity of the ovaries, which begins several years before and ends several years after the menopause. Therapeutic application of œstrogen or androgen at the appropriate age or in the presence of the appropriate endocrine substrate of the organism may inhibit the growth of the cancer by " swinging the hormonal balance ". All this, of course, is highly speculative and rather unconvincing, and it would probably be prudent, at the moment, to say that the mechanism of the action of gonadal hormones or castration in the treatment of mammary and prostatic cancer is completely unknown.

Choice of treatment of mammary cancer. It cannot be too strongly emphasised that *radical mastectomy* is the treatment of choice of mammary cancer if there is a reasonable possibility of thereby eradicating the malignant process. Surgery may be accompanied by *radiotherapy*, or in certain cases radiotherapy alone may offer the patient a better prognosis. Castration and hormone therapy are the last procedures to be considered. In some cases, as Professor Smithers has remarked, the combination of hormone treatment and X-ray therapy " holds out a real prospect of improvement in results as we learn more about their joint action on both the tumour cells and their environment ". If it is decided to combine œstrogen and X-ray therapy and œstrogens are administered first, they may increase the radio-sensitivity of the tumour, perhaps by making it more vascular. On the other hand œstrogen is less effective in causing regressions in areas previously irradiated, perhaps because the blood supply has thereby been diminished. Irradiation of localised bony lesions is more successful than systemic hormone therapy. According to Nathanson *castration* produces effects of limited duration and should be withheld until benefit from other methods of treatment are no longer forthcoming. Nevertheless many observers use it simultaneously with androgen administration in premenopausal women. The best results of castration are obtained in premenopausal women and 25 to 35% derive obvious benefit. It is even more effective in elderly men with mammary cancer.

Bilateral total adrenalectomy with subsequent substitution therapy with cortisone and deoxycorticosterone, has been performed during 1951 by Huggins on seven patients with mammary cancer, in the belief that the adrenal cortex is a source of œstrogen, as well as androgen. There was one immediate post-operative death, but four of the remaining patients were " greatly improved ". In general it may be said that *hormone therapy* can be regarded as only palliative and should be reserved for cases of inoperable cancers which are also not suitable for X-ray therapy. Endocrine therapy should be delayed until symptoms demand treatment. It is most suitable for elderly patients with slowly ulcerating growths and premenopausal patients with metastases, especially in the bone.

Oestrogen therapy. It is generally agreed that œstrogens should be reserved for patients whose menopause took place at least five years before. It should be recalled that cancer of the breast often develops in patients whose menopause was late, perhaps at the age of 50 or 55, and therefore " five years after the menopause " may often mean at the age of 55 or 60. Nathanson, in a

study of 141 cases, found that the chance of favourable response to œstrogen increases from five to ten years after cessation of ovarian function. Indeed œstrogens are usually without effect in patients under 50, and they may actually accelerate the growth if given to premenopausal or menopausal women. The ideal case for œstrogen therapy is the elderly postmenopausal woman with soft tissue metastases. Slowly growing primary growths are most responsive to œstrogens. Intra-abdominal metastases respond least and skin and lymph node secondaries best.

The *choice of œstrogen* is immaterial provided therapeutic doses are given and toxic effects such as nausea are prevented as far as possible. In this connection it should be remembered that there is considerable variation in the potency of different œstrogens, weight for weight. Thus, taking œstrogen withdrawal bleeding in amenorrhœic women as an objective end-point, dienœstrol is only a quarter as potent as stilbœstrol and ethinyl œstradiol is 20 times as potent.

The *dosage* favoured by different workers varies considerably and there is a tendency, especially in this country, to give enormous doses. Some give up to 300–500 mg. of stilbœstrol daily. Others find that 1–2 mg. daily is just as effective as higher doses. The American Medical Association Committee recommend 15 mg. daily. From my own experience of œstrogen therapy in other conditions I should think this is quite high enough and I should be prepared to believe that lower doses are quite as beneficial. Subjective improvement is evident in 50 per cent. of cases when a total dose of 2 gm. has been given, and objective improvement when the total dose has reached 4 gm. Oestrogen therapy must, of course, be continued after this total has been reached if a beneficial response has been obtained. Some observers favour continuous treatment in the belief that the more susceptible malignant cells are affected first and that a longer course is required to deal with the more resistant cells. Others advocate interrupted courses on the theory that the more resistant cells will become even more resistant as they become adapted to continuous therapy. There is no scientific evidence in favour of either of these beliefs.

Side effects of intensive and long continued œstrogen therapy are almost bound to occur and their significance must be appreciated. High doses of œstrogen, especially in menopausal women, though perhaps less frequently in postmenopausal women, often give rise to nausea or vomiting. This may be transient and wear off with continued administration. It seldom occurs if the œstrogen is implanted rather than given orally, and subcutaneous implantation of three 100 mg. pellets of stilbœstrol repeated every four or five months would seem to me to be preferable to continuous oral therapy.

Hypercalcæmia is an occasional hazard both of œstrogen and androgen therapy, and it is wise to call for serum calcium estimations in any patient who, having recovered from the initial toxic effects of stilbœstrol, is complaining of drowsiness, anorexia and nausea. Treatment should be temporarily stopped for fear of renal damage if the calcium level is significantly raised. *Oedema* and increase in weight may result from salt and water retention, and salt should be restricted in the diet and ammonium chloride administered. *Uterine bleeding* is the result of continued œstrogen influence on the endometrium. Treatment should be discontinued temporarily, and when it is resumed after bleeding has ceased, four injections of 25 mg. of progesterone should be given on alternate days once a month to induce a progesterone withdrawal bleeding which will simulate a normal period and thereby prevent the tendency to the prolonged and heavy metropathic bleeding.

Androgen Therapy. Androgens may be used in premenopausal women and are especially effective in cases with bone metastases. Androgen therapy is often combined with castration. It must be realised that the objective results of androgen therapy are only rarely seen. It has been estimated that only 10 per cent. of premenopausal women show improvement in the bony lesions, whereas a slightly higher percentage show regression of osseous metastases in postmenopausal women treated with either androgen or œstrogen.

Symptomatic improvement, however, occurs in a high percentage of premenopausal women treated with androgen, though the disease may progress and both signs and symptoms usually return within a year. Androgens may be given to the postmenopausal woman especially if she has bony secondaries, but it is probably better to try œstrogens first.

Androgens are usually administered in the form of testosterone propionate in doses of 50 to 100 mg. three times weekly. There is no evidence that higher doses are more effective. Implants of testosterone (such as six 100 mg. pellets) may remain effective for six months. Methyl testosterone may be given by mouth in doses of 100-200 mg. daily but it is wasteful and expensive and may cause nausea. Methylandrostenediol has a protein-anabolic effect but is a weak androgen and is probably not effective in retarding the growth of the mammary cancer or its secondaries. Objective effects of androgen are seldom evident in less than three or four months.

Side effects such as hirsutism, acne, deepening of the voice, enlargement of the clitoris and increased libido are often seen. Hypercalcæmia and œdema may also occur. The virilising symptoms are less frequently seen in older women, but may be distressing in premenopausal patients.

Results of endocrine therapy. It is really very difficult to assess to what extent hormone therapy may prolong life in any individual case, and it is salutary to remember that there is a 20 per cent. five-year survival rate in cases untreated by any method, surgery, X-rays or hormones. Nevertheless endocrine therapy is usually applied to inoperable and therefore late cases and those that respond objectively may survive from one to two years. With œstrogen it seems that the older the woman the better chance she has of responding and many people believe that it is the more slowly growing scirrhous type of growth which is most likely to show regression, though Haddow considers the best response to be in highly cellular neoplasms. About 50 per cent. of soft tissue metastases regress with œstrogen, and if the analysis is confined to women over 60 the percentage is higher. In general the primary growth responds most markedly, then the secondary skin nodules and least of all glandular metastases. The most striking observation is in connection with pulmonary metastases, for without treatment patients with lung secondaries and pleural effusions die in three months on an average. About half these cases show some benefit and a third survive for longer than a year. Evidence of response is seen early in the primary growth and superficial and soft tissue metastastases, namely in about three months, whereas lung and bony metastases show no objective sign of response for about six months. This is probably due to the dependence on X-rays to demonstrate regression of bone or lung secondaries. On the whole patients showing some improvement survive twice as long as those who show none. With androgens the most striking effect is relief of pain especially in bony metastases, for instance in the spine, so that narcotics become unnecessary, and this often occurs within a fortnight. Up to 75 per cent. of patients treated with androgens may experience this symptomatic relief. About a third of the patients treated show recalcification of bony secondaries. Androgens also induce a feeling of well-being in many of the patients treated. Nevertheless the average duration of survival is only about one year, though Adair observes that life may be prolonged two or more years in some cases of widespread bony metastases, whereas the result of androgen therapy on soft tissue secondaries is disappointing.

It is important to realise that results up to date show that endocrine therapy is only of limited value in a small percentage of cases. The best results are obtained with œstrogen in elderly women and, apart from an initial tendency to nausea, œstrogen therapy is unlikely to cause these women any great inconvenience. On the other hand androgens, with their tendency to produce masculinisation, and accompanied perhaps by castration and even adrenalectomy, may be very distressing to the patient and her relatives, and with the small chance there is of prolonging life one must carefully consider whether it would not be kinder to withhold this rather drastic treatment, except for the relief of agonising pain from bony metastases. Though it is the doctor's duty to offer his patient all reasonable treatment he is not always bound " to strive officiously to keep alive ".

Crime in Manhattan

By KEITH SIMPSON, M.D.

Notes on a visit, May, 1952

CRIME is a curious phenomenon : it has a habit of moving like a scorching cyclone, and while it's in full blast—as it was, for instance, in New York or Chicago in the 20's, or as it now is in Johannesburg—you'd be safer imbibing forensic principles in the Bodleian or relaxing with Sydney Smith under an almond tree in the Pyrenees. Better to study crime where it has been successfully checked—vice is never rubbed out—for there you'll find both the raw stuff and the scientific treatment existing in a kind of symbiosis, the disease and laboratories with means of control.

New York and Chicago are just such places, for crime and vice are not what they were in the Bowery, in Harlem, down the " Loop ". The sawn-off drag under the raincoat, the whine of machine-gun bullets, gangsters' molls, kidnapping and slaughter have been crushed under the ruthless weight of Hoover's F.B.I. machine, and the streets are comparatively safe. Of course you can court disaster leaning over Brooklyn Bridge at midnight or strolling back alone from the party through Central Park—but then every big city's got its shabby quarters, its hoodlums and pickpockets, a " skid row " (O.E.D. Piccadilly). No, noisy gangsterism has gone : the boys in the rackets have grown up, become fat and rich on blue chip stock, send their children to college, have brains . . . if a bit unscrupulous, and operate high-powered rackets equipped with lawyers and tax specialists. Unless the tourist searches he'll see only what he might see in Hamburg, London, Cairo or Paris—coloured by local customs and the particular foibles of another race.

With these gems of logic in mind, invitations to lecture in Harvard, at New York, and further west seemed to afford a good opportunity to explore the character of the American cop and his C.I.D. counterpart the F.B.I. man—both profound admirers of Scotland Yard, to sample the flavour of law enforcement in the States, and to compare scientific methods in crime detection under the hospitable guidance of some of the famous American forensic schools—and maybe also effecting sample tests of the " highball ", the " brain duster " or the more lowly " mint julep ".

The weight of American hospitality is, indeed, overwhelming : from the moment I received an official " bum through " (O.E.D. *vis a tergo*) in Airport Customs at Idlewild to the day, four weeks later, when the remains were " poured on to the plane " by an unofficial farewell party, they strove incessantly to wear me down—to exhaust my conversational gambits, to vary parties from " just a few drinks in my apartment " (always a cocktail party) to " dinner with a few friends " maybe only 10, maybe the 110 who sat down to the 23rd meeting of the International Medical Club of Washington to hear Hoover and myself as invited (if unwarned) speakers. No American host feels he can claim the title unless he's got you on the move, has raised your blood alcohol over 100 mg.%, and seen to it that within the first 48 hours you have sampled paranoia, the staggers, delirium tremens, insomnia and utter exhaustion.

How to get five hours sleep is a more serious problem than how to convert American Express travel vouchers into Pullman seats—and that is saying something. Life tears past. Gee it's kinda tough ! Tough ? It's like living on strychnine : a few moments of relaxation in a night train or on a plane—a trifling interlude—and then as you climb down to ground again, wham ! High pressure handshakes, dates, drinks, miles round corridors and laboratory benches, seas of finger prints and criminal profiles, screaming cop cars, " a few friends to meet you ", a tuxedo, more dry Martinis (O.E.D. old popskull), " Gee doc, we'd like to hear about crime 'n Scotland Yard, how 'bout a lil speech ? ", more drinks at the President's house, a party on the way home and a vague clambering towards bed by 1.30 or 2, and by 8.15 a.m. it's " All abooord " for the next round. It requires a tough constitution and iron spirit. You do well at the start to commend your soul to St. Botolph as you

pack your bags, get into high gear, take a few deep breaths and just let go your schedule.

Arrival in New York at 3 a.m. affords an unrivalled opportunity of seeing the dregs of a great city. " Hiya mister ! Wanna quit this 'n see a clip joint on East Side—jess a few V.8's, wrens (goil, sucker) ? No pounders (cops to you). Jeez boy, it's bible. Harlem 'll part yer hair with a bottle ; Stork Club'll pad the checks, 'n eff ya pick a lobby cutie she'll sure load yer drink with the knock-out drops. Brother, yer safe with me, cummon ! "

Where else could you have your bags carried by a West African " Red Cap " to a taxi driven by a Puerto Rican, ask the way of an Irish cop, be received at the Hotel desk by a courteous Greek and have an Englishman (to the core, Sir—served in the Ulster Rifles) see you to your room—and all (except the Ulster Rifleman) speaking the kind of " English " that has come to be called American ? " Yep, sir ! Park y'r grips inside, sir ? Wanna tear a strip off the clock ? Yessir ! Sure thing ! See here, you guys oughta take the Roosevelt. Go 1st and 39th. Want a single and shower ? Heck of a sleep you're gett'n." " Call at six, sir, with pleasure, sir ; and coffee, sir, yes certainly, sir. How is Sussex getting on this season, sir, if I may ask ? "

Boston

Six hours later I had made the journey to Boston along the lovely Long Island Sound and was lecturing in Harvard. Remember now, the body's the " corpse ", you call out the " homicide squad ", it's pronounced " off the hook ", and you " transport " it to the " morgue " for the " post ". Remember, too, it'll be " testimony " you give when you " take the stand " (i.e. sit in the chair provided) in Court, and it's an " attorney " who'll be after your blood, and he'll not be handicapped by wig or gown. " Objection " will break up your line of reasoning every few minutes, and you'll have to be prepared to sample the garlic in the breath of the attorney as he warms up to his cross-examination, for he may come within inches to intimidate you. Somehow, I felt, they regarded my English accent rather as we regard the Virginian's—or the Bostonian's—it was diverting enough to make them less critical of the substance of my lecture and we ended in a friendly mood. The fabulous Capt. Frances Lee, sponsor to Harvard's Department of Legal Medicine, had arranged a party for that evening and by good fortune it was to be at the Ritz-Carlton where I was : I could totter off upstairs whilst still under my own power or have a couple of white-gloved flunkeys deposit my body without fuss at any later stage. Le Moyne Snyder (the American Spilsbury), Helpern, Richard Ford, Russell Fisher and that powerful figure of generosity, Dr. Roger Lee, one of the guardians of the prosperity of Harvard, together with Dr. Berry, the Dean, a witty progressive with great sympathy for the student, made this a pretty good evening—and a surprisingly sober one. The flunkeys were not required.

It is not surprising that Boston—with Harvard College standing in its lovely grounds across the River Charles—should feel bonds of sympathy with London—and Guy's—for John Harvard was born in the Borough and christened in Southwark Cathedral. Did the Redcoats start a massacre there ? Was there some sort of Tea Party on the docks in the Old Town ? Well maybe, but stroll down the lovely streets of Brookline back of Boston and you might be in Beaconsfield. It's New England and the blood that flows in Boston veins is very blue by American standards.

You have to go to the Red Sox game at Fenway Park to be reassured that this is America, for there as Boston's " Lou " hits a homer the lid comes off. Sixty thousand are seized with a transatlantic madness and leap to their feet waving " hart dargs " (O.E.D. " poodle on a pillow ") and " corfee " about in frenzied gestures of delight whilst " Lou " (shaking hands as he passes the penultimate post) tears off yet another for the Red Sox. I ask Le Moyne Snyder back for a drink after the game only to find he's anticipated me—and with typical American courtesy has a couple of bottles of Scotch left in my room so I can repay his hospitality ! We chat about vagal inhibition and anoxia, of reconstruction of dismembered remains, of Spilsbury. Shop it is, but I've

travelled 3,500 miles to see him and we seem to agree that more cultured interests would be mere polite waste of time.

Crime barely exists in Massachusetts—it's a clean living place on the whole —and Boston samples much the same slice of forensic medicine as does, say, Bristol or Stockholm, two not dissimilar old port towns with commercial as well as cultural interests and a naturally law abiding population. So I have, however unwillingly, to return to New York to explore Manhattan's underworld, the dark waters of the Hudson, Harlem's filthy tenement blocks, and the seamier side of night life in Gothem's " white way ". After a week in Boston I am firmly decided that one would have to go a long way before one found anything more attractive than a job at Harvard and a home in Brookline —with the Bostonian Englishman : after a month of travelling in the States I'd discovered nothing to make me change my mind.

New York

Now New York's a fantastic city : Manhattan alone contrives to pack within its twelve by two and a half mile confines some eight to ten million by day and four to five by night with a dormitory of perhaps two million. Its hotels take 200,000 by night between " lily-whites " (O.E.D. sheets) and not a few who never get to bed. Big colonies of Italians, Greeks, Chinese, Germans, Filipinos, Central Europeans mix with Harlem's negroes and the S. American Chileans, Mexicans, Argentinians, Puerto Ricans—and thousands who would find it difficult to attach a race label to their blood. The Irish are there in force and where there are Irish there's—well, a lot of excitement and interest.

You'd find it difficult to lower an Austin Seven by helicopter on any of Manhattan's streets by day but you could leave your car (with thousands of others) around the streets all night. The lights of Broadway never go out— and the prostitutes on 42nd never seem to go in for long : pick-pockets, con-men, " runners " for joints of ill-repute, touts for gaming and thousands with nothing to do stand propping up the walls of the giant sky-scrapers. Vast docks lie only five or six blocks across West, and East River's cosmopolitan activities the same distance East. Harlem's black ghettos creep towards the Central Park on the North and the old Town's civic centre, Wall Street and big commerce lie to the South. Under it all rumble the trains of the dirtiest underground system in the world—a mad holocaust of millions in the rush hours and a risky part of Manhattan to lurk in by night, for whereas to flirt on Fifth Avenue may mean only arrest, to have such a lark in the subway is to court death—or at least a beat-up, a " roll " and a frisk which leaves you battered, dispirited and penniless. New York's not a place in which to roam too innocently by night.

Taxis are pretty cheap, and Manhattan's drivers are a mine of easy information. It's safe that way. I call one at 8.30 a.m. to go to Police Headquarters in Centre Street—" In trouble hey ? " says the driver with a grin, and it's not long before he's telling me what the taxi-man thinks of the New York cop with his " blistering " tickets. He's respected, if he hasn't yet acquired the affection earned by our London Bobbies.

Within a few minutes I'm watching Manhattan's famous " line up ", seated with a hundred or so of Commissioner Monahan's detective boys in the dim light of a theatre facing a stage across which New York's pickpockets, thugs, hoodlums, housebreakers and murderers parade in the glare of spotlights, profile and full face, answering questions by a senior C.I.D. voice a that seems to know everything—he's backed by the arresting officer and the victim's crime file. A sobering hour, this, where New York's toughs and criminals stand caught in the Police machine, gripped by a vice in which there's no wriggling, feel the crushing weight of law enforcement. Here the cop and the plain clothes man can see their clients without being seen themselves—hear them answer questions, evade, shuffle, smooth their hair and indulge the habits that'll get them caught again. London's C.I.D. might well benefit from the procedure.

" You Benny Fritzer ? " (" Yea.") " Stand over there, Fritzer, facing that microphone. Cummon, move. Hold yer face up 'n jess tell me howcum

you were found in Shotty's Yard at two this morning ?" (" Aint say'n nothin'.") " Come, Fritzer, what'd yer tell the cop who picked ya up, eh ? " (" Dunno, y'r tryin' ter pin a bum rap on me.") "Aw, quit stallin', Fritzer. Where's y'r pal Soapy, eh ? " (" Soapy aint no pal o' mine.") " Been in before Fritzer ? " (" Ya know ah have.") " What's his record ? "

Then a monotonous recitation of convictions—May 1935, three months, larceny, November 1936, six months, breaking and entering, September 1939, two years, robbery with violence . . . and Fritzer listens impassively—he's heard it all before and he knows he'll get a chance of pleading when he's up for trial. He'll be allotted an attorney, even if he's broke, by the Magistrates or Grand Jury that commits him for trial, but he'll reserve his defence for the real trial at the Court of General Sessions. Here, after tiresome objections to jury members (which might go on for a day or more) he finally meets justice.

Attorneys' conduct of cases is much as in England though they have the well of the court to exercise in and can approach the jury or menace witnesses at close quarters. The authoritative presence of the judge is there to see fair play—if without the panoply of English Assize Courts—and though his Honour's eyelid may gradually settle and his attention seem to waver, any threat to his authority in the Court will at once bring a cold monosyllabic interjection that instantly changes attorney's line of attack ; " objection " may be sustained—or dismissed as summarily by a dry " Next question. " Only once did I hear a judge go as far as " No, I've heard enough Mr. Attorney."

Procedure may appear casual by English standards but the demand for real evidence—for proof, not mere suspicion, for absolute fairness " between the People of the United States and . . . " accused is undoubtedly the same. Milton Helpern, with whom I attended, found the pace pretty hot with three courts going in Manhattan and Brooklyn the same morning—a General Sessions trial in Manhattan on a charge of homicide against a coloured man (who'd bludgeoned his woman in Harlem), an exhumation at a Federal Court in Brooklyn for an insurance claim based on a shooting that had not been fully investigated at the time, and a civil claim back in Manhattan (without a jury), arising out of a street accident ; I sensed a crafty piece of insurance side-stepping in this Court.

A day or two in the city morgue at Bellevue Hospital reflected the turnover of the Medical Examiners' system in New York . . . Gonzales, Chief Medical Examiner in the Central Office, Helpern and Vance, Senior Pathologists, handling some 4000 autopsies a year, and 20 staff out in the City seeing reported cases to decide whether the circumstances justify an autopsy. The Medical Examiners are both coroner and pathologist in one, but do not hold inquests —merely inquire, examine and record conclusions for the Registrar. Alexander O. Gettler, famous toxicologist and a great " character ", is there to throw in the weight of his experience where required, and extensive mortuary and laboratory services are available at hand, in the same block.

New York sees about 75,000 deaths a year and the Medical Examiners' Office investigates about one in five of them. The doctor is allowed to certify a few after enquiry, but some 15,000 are given a Medical Examiner's certificate —about one in four after autopsy. The figures in a recent year were :—

Total cases investigated		15,513 (autopsies in 4,135).
(*a*) Natural causes		9,403
(*b*) Violent or unnatural deaths		6,052
Accidents	4,631	
Suicides	976	
Homicides	393	
Abortions	23	
Stillbirths	135	

The Metropolitan area of London alone has about twice this number of autopsies a year (if fewer homicides), but is, of course, exceptionally advanced

in achieving a post-mortem examination in 97–98% of cases reported to the Coroners. As I went further west—Pittsburgh, Cleveland, Chicago, Minneapolis, the proportion of autopsies achieved became smaller and smaller until the situation reached a pretty grim " all time low "—especially, of course, in districts where the older American Coroners' system operated, where anyone achieving the electors' vote might become coroner—often the undertaker himself. The cases are much like those seen in London but alcohol plays a rather larger part in New York's violent deaths and the " drunkometer "—sometimes a " one breath " automatic recorder worked by the cop himself—is achieving much attention. A night trip down the docks enabled me to sample the bottled pleasures of the Bean Pot on the Gunnery, and to assess the ease with which the sailor could acquire an extra sheet in the wind. Spirits are raw and Chateau Poulet Canet is difficult to obtain.

The time had come for me to meet the New York Association of Medical Jurisprudence, and I had to sober up somewhat, get my filthy pictures into order and prepare to put " The Yard " across. What the English visitor seldom bargains for is the astonishing " reception committee " that is laid on wherever one has a " date " of this kind. It starts somewhere around 5.30 where at an agreed address " for a drink before we start " a howling mob has gathered to shake hands between " dry Martini's " that are indeed powerfully dry. After an hour or so of this the reception committee consult their watches and the party begins to dissemble. Those who have been detailed mobilise transport. I am clapped under guard and bundled into the interior of one of a pack of American saloons that scream off round the streets like a swarm of bees to the next locus. This time it's the delightful New York Academy of Medicine where the hierachy have set a gargantuan repast calculated to divert some two-thirds of reserve blood from the brain to the luxury calories in the abdomen, leaving the cortex to tick over on an iron ration of oxygen in a plasma whose concentration of ethyl alcohol is now steady at about 180–190. Relaxation, good food and wine, conversation, brandy and a cigar all encourage repose, a somnolent feeling of well-being which is suddenly jerked back to harsh reality by the President (or are there now three ?) rising to his feet, looking at his watch(es), saying ominously, " Well, dahctor, s'bout time ah guess. Lecture's at 8.30. All set ? " I stagger to my feet trying to rouse myself, a bodyguard close in on me, I am manoeuvred upstairs and propelled towards the front of a hall filled with another mob—a sea of horribly intent and strictly sober faces, a jury indeed. What was the title ? Ah, of course, the President's there on his feet saying with menacing calm, " It is with great pleasure, ladies and gentlemen, that I introduce this evening . . . " There's no escape now. " . . . Science in Crime Detection . . . Scotland Yard which the world regards . . . " Just like climbing into the ring.

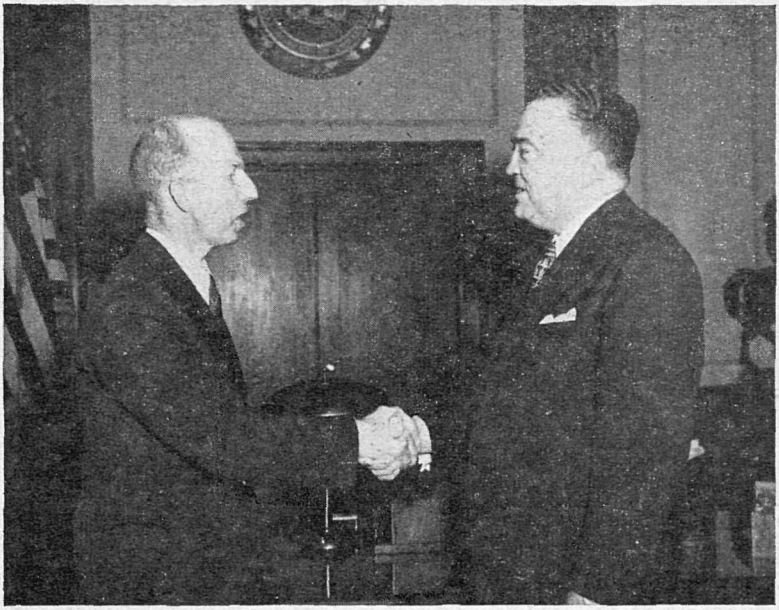
The Law and Medicine usually augurs good company and, largely it must be admitted from the Law, a high standard of speaking during discussion. This audience does not disappoint ; I begin to feel it has been a good evening. We get concerned over the propriety of scientific evidence being directed to the interests of prosecution or defence ; Judge Barshay, who was only a few years ago a terror as a defending attorney, soon recreates a court atmosphere with his account of an arsenic homicide where the prosecution's testimony was over-cooked. Theo Curphey, Medical Examiner of Nassau County, Long Island, a most genial secretary, helps me to cool off in a long midnight amble by car round darker Manhattan. I suddenly realize I am " dog tired ".

The F.B.I. at Washington

A visit to the vast F.B.I. headquarters at Washington provides a curious mixture of intensive purposeful organisation in crime control and of window dressing of the kind the Americans can do without offence. There, in a Department of Justice that depends upon an annual Treasury grant for its existence, a vast annual turnover of laboratory testing and sieving of evidence goes on behind plate glass corridor walls along which conducted parties of sightseers shuffle through miles of passages, agog with excitement at seeing the " F.B.I. machine ". America's 140 million inhabitants provide five or six times what England's 40 million can give to the experts in crime analysis,

and the F.B.I. figures reflect their overwhelming experience in almost every branch of forensic science. In 1951 no less than 104,931 specimens were received and reported upon—in addition to the turnover of 20,000 finger prints per day.

Obliterated, coded, defaced or forged documents, including 17,330 samples of typescript, account for 64,510 speciments, and as many as 2035 fibre, 2011 firearms and 1406 tool-mark tests were undertaken per annum—where England counts itself fortunate in seeing only perhaps 12 firearm crimes a year (i.e. excluding suicides). All this goes on to the shuffle and hum of guided parties and the more authoritative drone of conductor voices—" See here, now, the $4000 apparatus installed by the Ministry of Justice to break the wise guys pedallin' dope . . . pushin' decks of horse (O.E.D. heroin) round the blocks for the hop heads (addicts) as can't do without . . . detect one part in five million . . . the graded light passes through the slit at the end opposite the sights, is spread into its spectrum of colours . . . " and the voice drones on while you and I try to devote ourselves to serious assessment of the quartz spectrometer as a means of analysis.



" Your hand is gripped under the U.S. flag with a genial strength and warm friendliness . . . "

Mr. J. Edgar Hoover welcomes Dr. Keith Simpson at the Headquarters of the F.B.I. at Washington on May 16th, 1952.

J. E. Hoover, undoubtedly a great American, is the powerful figure that, with indefatigable energy—and solid integrity—has, in 20 years, raised this great machine from its infant days, breaking gangsterism in the 20's–30's to the present status where it is rightly regarded as the one powerful instrument in law enforcement that the public can trust implicitly . . . so let the public see how it works. Your hand is gripped under the U.S. flag with a genial strength and warm friendliness ; the entire department is opened up laboratory by laboratory and you are passed from Director to Director until at sundown your mind is gummed solid with figures and your tibiales are gel-like from

accumulation of lactic and phosphoric acids . . . you totter finally through the F.B.I.'s G.P.O. where 20,000 complete fingerprints are reported on by return *per diem*—you're scarce able to whistle a " phew " on finding that the fingerprint department record cards stacked on each other would rise to a pile 19 miles high . . . it's time for a " brain-duster " or a more gentlemanly " Scartch 'n soda ".

DOPE

The problem of " dope " is an international one—a twin problem in social and criminal " drifting ", but it has more recently shown a disturbing tendency in America to break into adolescent life—in college, in youth clubs, on the street even. You aren't " mature "—a " know-how "—until you've tried it. " Go on, just try—there's no harm, and you can break it off if you don't like the idea of ' the habit '." So you get drawn in. You contact a " pusher " who's got some (by now adulterated) " dope ". (Heroin is not permitted by law for any purpose in the States.) Maybe the " pusher " will turn out to be a " mule "—a mere child, maybe a crook whose chief aim is to pocket the cash which will enable him to buy more. 60% of all " cokies " who get into a " jag-party " will be heroin addicts—passing " caps " of adulterated heroin. " Goof-balls " (barbiturates) are more for the neurotic, and " reefers " (marijuana, " weed ", " miggles " or " tea ") for the adolescent who'd like to " try anything once ". Bars, candy stores, billiard rooms, " jive-joints " or " prosperous " boarding houses are the chief resorts, and young mobs on Times Square or Coney Island " beach " may indulge pretty openly in teenager smokes of " reefers "—cigarettes made from marijuana : their smell is characteristic.

It is unfortunate that the U.S. Penal Law does not make it a crime to be a " dope " addict : but to be in possession of " dope "—or of " works " (i.e. syringe, needles, fillers, spoons and meth. flames) *is* a criminal offence, as is intent to administer " dope ", or to commit a sexual act on a female who is under the influence of a narcotic. 2482 arrests for such offences were made in the last year by New York's " Dope Squad " and 77% of all these were found to have a previous criminal record. Dope pedling and crime are undoubtedly closely allied, and it is the amorality and lazy social deterioration engendered chiefly by opium and heroin which are responsible for this danger. Most of the heroin comes from Italy and, since the U.S. forbid its importation, is smuggled into the " pushers' " circles, much adulterated by dilution at each passage. The opium products come chiefly from Mexico, Iran, India, Thailand and Turkey—and are smuggled, as cocaine is : there is relatively little traffic in coca products.

The treatment of addicts is, as everywhere, disappointing : at a Lexington (Kentucky) federal hospital 40% of all " cured " addicts return, prey again to this menace they cannot now evade. Only stricter federal control of smuggling at ports (air and sea) is likely to bottle up the distribution of these smuggled drugs—and still marijuana grows weed-like in the back garden : not a little was found on bomb sites in London during the war !

America is fascinating ground for the study of crime—and in circles as congenial as any the world has to offer. I had until now explored only the cosmopolitan cities of the Eastern seaboard, Boston, New York, Philadelphia, Baltimore, Washington. Cleveland, Chicago, Minneapolis—the middle West, still lay on my " schedule "—and I had to " git goin' ". Of these, maybe, some later notes. Taxi !

RENOVATIONS IN HUNT'S HOUSE

Extensive repairs and alterations are now being carried out to the central staircase and the surrounding landings in Hunt's House. The bomb damage is being covered by new paint and boarding, the main stairway is being re-treaded, and new fluorescent lighting is already partly installed. Further amenities for relatives and visitors include a small waiting room walled in with glass bricks. All this work is due to be completed before Christmas.

Correspondence

Intelligence Tests

SIR,—Instead of your Michael Faraday example of a question in an intelligence test, you might have chosen one from the recent article on the subject in *Picture Post*. There was a set of groups of four nouns, from which one had to be selected because it was unlike the other three. The example given was something like this : " Bread, Wood, Meat, Cabbage ". The answer was " Wood ", presumably because it is not a food, but I asked one of my children and he immediately said "meat", because he had often played " Animal, Vegetable or Mineral ? " Later in the day I met the boy's headmaster and tried it on him. His answer was " Cabbage " so I asked him why he had chosen that, and he replied : " But this is an intelligence test, isn't it ? I don't have to give my reasons."

Yours, etc.,

P. R. EVANS.

SIR,—I very much enjoyed reading " Passim " this week but, Sir, is it possible to have four alternatives ?

Yours, etc.,

112a, Harley Street,
London, W.1.

JAMES MANSIE.

[The Concise Oxford Dictionary defines " Alternative " as follows :— " Either of two possible courses . . . ; one of more than two possibilities."
—*Editor.*]

SIR,—Does the use of questions followed by answers one of which the candidate chooses really deserve your broadside ? Is your unqualified statement that asking him to eliminate from limited alternatives " strikes a damaging blow at that impartial outlook which those who learn should constantly try to achieve " true ? Surely one can choose from among them with impartiality. Is not this type of question only an example, greatly simplified, of how one diagnoses a difficult case ? A man arrives complaining of a lump in his abdomen. The history may make it clear that he probably has chronic malaria. If the history and examination leave you with an unexplained splenomegaly, you may then review the forty-two causes of splenomegaly to find what are the causes likely to be worth following up in your patient. This was Sherlock Holmes's way and it is ours. With practice we do it unconsciously most of the time and consciously only when we are baffled.

The second point I would make is that besides an impartial outlook and a knowledge of certain principles, you need, to be a safe doctor, to be in possession of a great many facts. Would it not be fair to use this method of questioning to find whether a potential doctor knows the dose of sedative to give a man in status epilepticus ?

Perhaps you were happy to be at a medical school in Britain rather than in the U.S.A. where a number of schools make use of this technique for part of their examining. It saves examiners' time though it is a trifle humbling to know that some of your papers are marked by a clerk (not a clinical one). It must be a godsend for those of us whose writing is such as to get our efforts marked down.

In the *Lancet* Dr. Coope quoted the great French teacher P. A. C. Louis as saying, about 1825, " Formez toujours les idées nettes. Fuyez toujours les à peu près." I can almost hear a clinical clerk saying, if asked your imaginary question : " Well, Sir, umm, Michael Faraday was, I think, rather a good actor who took a certain amount of pleasure in travel and was slightly interested in electric currents and is said by some not to have quite escaped entirely from being shut up though that, Sir, isn't quite certain." Practice

in making up one's mind is not harmful and it may help one to find out what one does not know clearly.

If you had condemned the exclusive use or the misuse of these tests, one could only have agreed with you. No one suggests it. The decision as to which school eleven-year children are sent on to is made on the results of tests *plus* other things such as the report of the child's teacher. Well used, this method of finding out about a candidate seems to me to have a useful place, but I may be biased because in the Services I was put through the Progressive Matrices Test and got all the answers right.

Yours, etc.,
CORVUS.

The Intern Year

SIR,—Our thanks and encouragement are due to Roy Stewart for his letter on "The Intern Year". May I add yet another voice of protest ?

Not only do we, as newly-qualified doctors, need the opportunity of doing locums to supplement our pay as housemen, which promises to be less than the weekly pay packet of any unskilled labourer, but the busy G.P. will now find it quite impossible to take his annual holiday. Already the shortage is so acute that G.P.'s are going on holiday leaving no qualified man in their place. Now his only hope of a relief will disappear. Our teaching is as good as ever it was. Surely after six long years we are responsible enough to be let loose on the public ?

Yours, etc.,
ANNE BOOTH.

Guy's Science Club

SIR,—May I make use of the *Gazette* to offer a warm invitation to all members of the Teaching and Research Staffs of the Hospital and the Schools to attend the meetings of the Guy's Science Club during the coming session ? Meetings are usually held on the second Wednesday in each month during term at 4.45 p.m. (tea at 4.30 p.m.) in the Staff Common Room, by kind permission of the Dean. Notices of the speaker and subject are given both in the "Guy's Diary" and on various notice boards about the Hospital precincts.

The first meeting of the new session will take place on Wednesday, October 22nd, when Sir R. A. Peters will read a paper entitled "New Light upon an Ancient Poison." Newly appointed members of the Staffs will be welcome at this and all subsequent meetings.

Yours, etc.,
D. J. ANDERSON,
Honorary Secretary, Guy's Science Club.

Pupils' Physical Society

SIR,—The annual general meeting of the Pupils' Physical Society is to be held at 4.30 p.m. on Tuesday, October 7th, in the Anatomy Theatre, when the programme for the forthcoming session will be discussed.

All students, particularly those in their clinical years, are cordially invited to attend. We should like to emphasise that the success of the Society depends largely on the attendance at the first meeting when the officers of the Society are elected.

Yours, etc.,
J. H. BAYLIS,
P. A. LANE-ROBERTS,
Honorary Secretaries.

Rupture

SIR,—The relative incidence of the different sorts of rupture (inguinal and femoral herniæ) in men and women is variously stated in the books. Enquiry into all the cases that were admitted to Guy's from 1939 to 1948 (excluding the year 1945) yielded the following figures :—

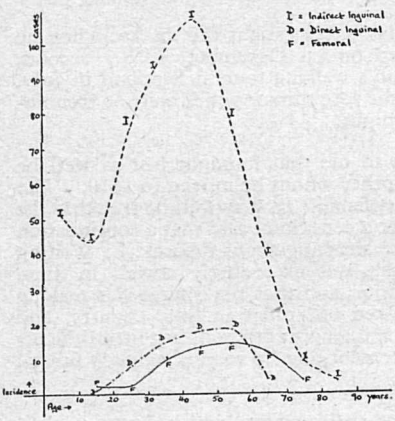
There were 785 cases, distributed thus :

Type of Hernia	*Men*	*Women*
Indirect Inguinal	501	74
Direct Inguinal	64	7
Femoral	59	80
TOTAL	624	161

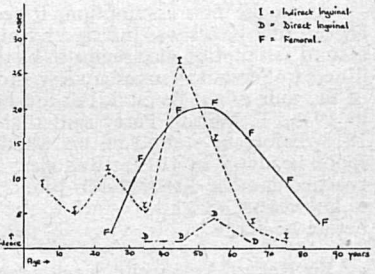
It is interesting to note that four times as many men were admitted as women, even though many of our young men during this period must have been serving with the Forces and therefore treated at military hospitals.

In men, inguinal herniæ were about ten times as common as femoral. In women, the incidence of inguinal and femoral herniæ was almost exactly equal.

The age distribution of these cases is shown in the accompanying graphs. The actual figures are attached. Below the age of 10 only indirect inguinal herniæ occurred in either sex, pointing to the relatively greater importance of congenital factors then, and the increasing importance of acquired factors later, in the ætiology of rupture.



Hernia in Men



Hernia in Women

RUPTURE : AGE DISTRIBUTION

	Total	*Age* 0–9	10–19	20–29	30–39	40–49	50–59	60–69	70–79	80–89
MALE :										
Indirect Inguinal	501	51	43	77	92	109	79	39	9	2
Direct Inguinal	64	–	1	7	15	18	19	4	–	–
Femoral	59	–	2	2	11	13	15	12	4	–
	624									
FEMALE :										
Indirect Inguinal	74	9	5	11	5	25	15	3	1	–
Direct Inguinal	7	–	–	–	1	1	4	1	–	–
Femoral	80	–	–	2	12	19	20	16	8	3
	161									

I should like to thank Mr. Rex Lawrie for his help in this small investigation.

Yours, etc.,

B. L. MALLETT.

The Medical History of John Keats

SIR,—I should be very grateful if you would allow me to raise the question in your columns whether John Keats was suffering from tuberculosis in the year 1819, and perhaps to suggest that the medical history of one of the greatest of Guy's men, perhaps the very greatest, would make a rewarding field of research.

The point about 1819 is this: everybody is agreed, I think, that in that year Keats achieved, at the age of 24, almost miraculous immortality; and I think he is the only poet about whom it has been said with authority, for example by Matthew Arnold, that he ranks with Shakespeare. But everybody takes it for granted that during 1819 he was being burnt up by pulmonary tuberculosis. The point is interesting for two reasons: first, because a great many people believe that there is some connection between tuberculosis and genius and it has often been maintained that Keats's poetry was no more than a symptom of his disease; and second, because it shows how extremely difficult it must be for historians to arrive at the truth.

May I put it like this? Keats's first hæmoptysis was on 3rd February, 1820, and he died on 24th February, 1821. It was found post-mortem that "the lungs were entirely gone". Was that hæmorrhage the first indication of a fulminating attack, or was it a late symptom? If the latter, when, where and how did the disease start?

It is assumed by everybody, first, that Keats caught the disease when he was nursing his brother Tom, who died on 1st December, 1818; second, that the illness which put an end to John's walking tour in Scotland in July, 1818, was tuberculosis; and third, that the sore throats which were so troublesome during 1819 and 1820 were tuberculous.

As to the first assumption, it seems to me that it might just as well be argued that Keats was infected by his mother whom he nursed in 1810. The second assumption also seems to be unjustifiable. It may well be true that the illness in Scotland caused anxiety and that a consultant said that a continuation of the tour might be fatal, but did he say anything about tubercle? Writing in 1933, T. Wilson Parry said that Keats was exceedingly unwell in June 1818, before he started on his walking tour, and that the disease was making rapid headway in 1819. But Keats walked 642 miles in hilly country (and coached another 400) between June 25th and August 6th, so it is a little difficult to know what weight to attach to the statement that he was exceedingly unwell before he started.

Sir Robert Armstrong Jones says that at Inverness, which Keats reached on August 6th, "Keats's health became seriously impaired, the laryngeal catarrh became aggravated and symptoms of tuberculous disease of the lungs appeared with the usual fever accompanying consumption." Most unfortunately he does not give the source of his information. Obviously he would not conclude that the feverish catarrh in 1818 was tuberculous just because the patient died of tuberculosis in 1821, but somebody else, less well trained, may very easily have done so and it is just possible that Sir Robert may have omitted to test the evidence.

The third assumption, that the sore throats in 1819 were tuberculous, seems to occur frequently in all the books. But is there any mention, other than that above, of laryngitis? Is there any evidence at all that Keats lost his voice? If not, is there any tuberculous disease of the throat in adults other than tuberculous laryngitis? If Keats's sore throats were no more than recurrent tonsillitis; if the illness in Scotland was a feverish cold, or pneumonitis, were there any symptoms at all of tuberculosis in 1819?

Yours, etc.,

Wetherby, Yorkshire. R. L. KITCHING.

Guy's Hospital School of Nursing

PRESENTATION OF PRIZES

THE annual presentation of prizes and medals took place on Tuesday, 23rd September. Lord Cunliffe and Matron received a large number of visitors in the Nuffield Nurses' Home where tea was served. It was a great pleasure to welcome so many parents, representatives of other hospitals, members of the Staff and their wives and members of the Board of Governors.

After tea, the Physiology Theatre, kindly lent by Professor Spurrell, was soon filled to capacity. Lord Cunliffe, Chairman of the Board of Governors, presided and gave a short address of welcome.

The Sister Tutors then gave a brief report on the work of the past year and Sister Pestell of the Front Surgery gave a picture of the nurses' work in the Surgery and Out-Patient Department. The Matron also welcomed the visitors and spoke of possible spheres of activity open to a Guy's nurse when she is State Registered and of her influence upon other people with whom she comes in contact. She mentioned different types of work which Guy's nurses were undertaking in England and other parts of the world. The Superintendent, Mr. Doherty, also welcomed the Bishop of Croydon who has been for many years a friend of Guy's. He drew comparisons between nursing in the time of Sir Astley Cooper and the present day and spoke of the reliance which the surgeon places on the sisters and nurses of today.

The prizes were then presented by the Bishop of Croydon, The Right Rev. Cuthbert Bardsley, C.B.E. :—

Pharmacology :

1st Prize	M. Hazard	*2nd Prize*	I. Bissett
	M. Evans		M. Knight
	P. Grundy		J. Booth
			A. Long

Surgery and Surgical Nursing :

1st Prize	J. Hern	*2nd Prize*	P. Jowett
	M. Hazard		G. S. Evans
	S. Gilbert		A. Jellis

Medicine and Medical Nursing :

1st Prize	M. R. Lee	*2nd Prize*	J. Scales
	J. Diamond		H. Knight
	J. Hern		P. Jowett

Special Diseases :

1st Prize	N. Hancock	*2nd Prize*	B. Stafford
	H. D. Knight		B. Salmon
	M. McNair		
	P. Jowett		

Guy's Final Examination :

1st Prize	E. M. Ireson	*2nd Prize*	M. Abraham
	J. M. Carter		P. Gillett
	K. W. Marshall		M. B. Morgan
	M. Hilton		H. W. Sheehy
			M. R. Lee

The Evelina Hospital for Sick Children :

SURGERY AND SURGICAL NURSING	S. Daldy
SPECIAL DISEASES OF CHILDREN	S. Daldy
MEDICINE AND MEDICAL NURSING	B. Gibbs

Hospital Final Examination :

1st Prize	R. Burden	*2nd Prize*	M. Owen
			S. Zelewicz

continued overleaf.

Medals : Awarded to the Nurses obtaining the highest aggregate number of marks in all the Examinations and taking into account their record of practical work.

Gold Medal E. M. Ireson

Silver Medal M. R. Lee

Bronze Medal M. S. Sims

Butterworth Medals :

Awarded after seven years' consecutive service to :—

Patricia James Barbara N. Sevenson

The address by the Bishop followed. In a very stimulating address he put before us the dignity of work. He reminded us of reasons which influenced the choice of a job and asked if our hearts were in our work or our eyes on the clock.

He spoke of work which could be glamorous and exciting and of the joy of doing the non-glamorous work and doing it well. As nurses we have a unique opportunity of putting people first in our scale of values and if we put God first this gives reason and purpose to life and work.

A vote of thanks was proposed by Nurse E. M. Ireson and seconded by Nurse M. R. Lee.

Book Reviews

Lumbar Disc Lesions. By J. R. ARMSTRONG, M.D., M.CH., F.R.C.S. Livingstone. *Price* 42*s.*

Low back pain and sciatica have been common since the beginning of time. The disc lesion, however, is little more than adolescent, about to celebrate its coming of age. A monograph on the subject is therefore timely.

The author has attempted to put disc lesions in their proper perspective. He describes the anatomy of the disc and its pathological misdoings. He describes the clinical picture, and takes special care to correlate the clinical findings with the pathological lesion. It is, of course, essential in the study of any clinical syndrome to have an understanding of the underlying pathological process.

There are some who regard all cases of lumbago and sciatica as due to disc lesions. The author is careful to devote a long section to the description of the many other conditions that produce low back pain, which must be considered in the differential diagnosis.

He states that he has operated upon 1000 cases. This extensive operative experience does not blind him to the value of other methods of treatment, commonly called conservative—bed rest, plaster jackets, supportive belts, etc., etc. He is of the opinion that but 20% of all patients become completely symptom free by such methods. About 20% will be of such a severity as to demand operative treatment, whilst in between is a broad group of cases that can be restored to such a degree of comfort as to be able to continue their ordinary activities, without necessarily being completely free of symptoms.

The technique of operation is carefully described, and amply illustrated. The cure rate, amongst different surgeons, is stated to be between 60% and 80%. Armstrong states that " there is no other group in which a major surgical procedure has afforded so much satisfaction to both patient and surgeon."

This book, continuing in the high standard of the publishers, with type and illustration of the highest order, is an excellent exposition of the subject.

N.L.E.

Applied Physiology. 9th Edition. SAMSON WRIGHT. Oxford University Press. *Price* 50*s*.

" Samson Wright " has a well established place among textbooks of physiology particularly for students preparing for the Primary Fellowship and other higher examinations. The most useful contribution the reviewer of this ninth and radically altered edition can make, is to estimate the effect of the changes upon the characteristics of this book.

The first change is in the re-arranging and re-writing of some of the subject matter to give the student a more panoramic view of physiology than is provided by the usual treatment of the subject in " systems ". Claude Bernard's *fundamental statement concerning the constancy of the internal environment* is made the basis of this first section and provides a theme which might well be continued further into the book where some " systems " still remain in isolation. A small change in the arrangement of the first section to bring " Oedema " closer to " Exchange of fluid between blood and tissue spaces " might be an improvement.

A second change in this edition is the appearance of assistant authors who are specialists in branches of physiology or associated subjects. This might have been a retrograde step if the contributions of the specialists laid emphasis on parts of the subject of special interest to them but of no importance to the medical student. Fortunately there is little evidence of this, save in the section on metabolism in which there is too much chemical detail. This can be a great burden especially to students returning to physiology for a higher examination after a period in clinical medicine.

The author of a textbook on medical and allied subjects must find it difficult to decide what to include and what to leave out when surveying advances made since his previous edition. This edition is some 250 pages longer than the last, but it is not easy to see what could have been omitted except for the chemical detail.

" Samson Wright " remains a remarkable storehouse of facts to which all who are interested in applied physiology can turn, confident that it is up-to-date and reliable. D.J.A.

Child Health. A Practitioner Handbook. Edited by A. A. MONCRIEFF. 2nd Edition. *Price* 21*s*.

To many concerned with pædiatrics " Child Health " is of less absorbing interest than child disease. Consequently, undergraduate teaching on the many aspects of preventive medicine with which this book deals is often scanty. Though intended for the general practitioner and for the medical officer in charge of welfare clinics and school health services, it therefore contains much which fills the gap in the ordinary textbooks of pædiatrics for medical students. This new second edition covers the same ground as the first and tells us in generally simple terms how to run a welfare clinic, a day nursery, and a school medical service. It describes briefly the principles behind the child guidance clinic, the system for combating juvenile rheumatism in greater London, the management of the deaf, blind or crippled child, as well as giving short accounts of more commonplace matters such as infant feeding and school diet.

As in many textbooks in which each chapter is written by a different author, some overlapping and repetition occurs, and the book is made unnecessarily long by the inclusion of short accounts of the treatment of certain diseases (e.g. tuberculosis) which are irrelevant to the main issue and in themselves inadequate. In the chapter on juvenile rheumatism there is a paragraph dealing with the use of penicillin in treatment, but no mention of its more important oral use as a prophylactic measure. Small objections such as the inclusion of " tongue-tie " among a list of major defects and an absurdly rigid schedule of neonatal feeding can be overlooked in view of the large amount of valuable information which the book as a whole imparts. D.G.V.

Sport

RUGBY

Guy's *v.* Catford Bridge

At H.O.P. Result—Won 9—0

On an afternoon resembling July more than September, Guy's entertained Catford Bridge to open the club's 109th season.

From the kick-off the Guy's forwards pressed hard confining the game to their opponents' 25, and Howells soon kicked a penalty goal to open the score. This roused the Catford Bridge forwards sufficiently to take them into the Guy's half, but crisp passing and hard running by the backs soon drove them back and eventually T. Smith side-stepped the wing-forwards to send Osbourne over for a try. A few minutes later Osbourne caught the defence on the wrong foot with a cross-kick, and after a short bout of passing T. Smith crossed for another try.

Apparently Guy's now decided they had done enough and settled down to enjoy the sunshine for the rest of the first half. But although the Catford Bridge forwards tried hard the half-speed rugger of Guy's was sufficient to keep them at bay.

During the second half Catford Bridge relied entirely on their forwards, who were successful in keeping the ball out of everyone's hands, particularly the Guy's backs. Consequently the standard of rugger deteriorated, although Guy's had a few good movements and Cameron and Honey came within a yard of the line. The game thus fizzled out with a comfortable win for the hospital, by a side showing more than a little promise of better things to come.

Guy's "A" XV began their season with a resounding 23–3 win over Catford Bridge "A", so dare we hope that we are at least in sight of better hospital rugger ?

Guy's *v.* Blackheath

At Blackheath. Result—Won 6—3
26th September, 1952

Guy's maintained the promise shown on the previous Saturday by defeating Blackheath at the Rectory Field. From the start the Guy's forwards played as a pack and carried the game into the Blackheath 25, reaping their reward after 10 minutes continued pressure when Howells kicked a penalty goal. It now became obvious that Guy's were the faster and fitter side, and a continued attack was set up on the Blackheath line. The forwards dominated the loose and the backs opened up the game at every opportunity. Indeed it was only the anxiety of the team to score that prevented them from doing so, loose passes being given, with the line at their mercy, to abort many movements in the best French tradition. It was from one of these that a Blackheath centre intercepted on his own line, ran the length of the field, and on being tackled at the corner flag sent a forward over to even the score at half time.

But on kicking off the Guy's forwards swept Blackheath before them and Fairweather scored a try to put Guy's again in the lead. Blackheath now gave up any thoughts of playing open rugby and relied on their heavier forwards to pound Guy's into submission. This seemed likely to succeed at first while Guy's were still trying to handle the ball. But on Scott leaving the field with a knee injury, Guy's also closed the game up and after the Blackheath forwards had worn themselves out on the bulwark of Smith and Howells, kicking returned to the attack. Once again the Blackheath line survived more by good luck than judgment and Guy's were denied the points their play warranted.

This was easily the most encouraging performance by the Hospital for many a season. The entire team playing with a spirit that should keep Guy's in the front ranks of club rugger.

Hospital Information, etc.

NEW STUDENTS, 1952 ENTRY

GUY'S HOSPITAL MEDICAL SCHOOL

1st Year

Name	*School*
Adams, J. F. R.	Cranbrook
Allan, J. R.	Epsom
Arnold, E. E.	Bedford
Ball, Gillian	Bedales
Bates, D. G.	Heath, Halifax
Bouch, J. C.	Canford
Burgess, P.	Stowe
Bush, M. F. H.	Latymer Upper
Chignell, M. G. P.	Downside
Clarke, N. H.	Epsom
Coe, M. J. S.	St. George's
Cooper, P. L.	Cheltenham
Duff, J. K.	Trinity, Glenalmond
Dugan, Una	Portsmouth High
Elsdon-Dew, R. W.	Cranleigh
Evans, H. C.	Merchant Taylors'
Gladders, P. J.	Rutlish
Greenwood, R. S.	Tonbridge
Gunning, D. F. S.	Epsom
Hammond, K. C.	Epsom
Hawley, R. T.	Clayesmore
Hayes, J. S. G.	Wycliffe
Hellewell, J.	Fettes
Holmes, D. M.	King George V Grammar, Southport
Horniblow, A. S.	Loughborough Central
Lam, S. J.	Dulwich
Lee Potter, J. P.	Epsom
Lindsey, M.	King's College, Taunton
Loxton, M. J.	Windsor County Grammar
Macfarlane, A. J.	Mill Hill
Maitland, B. W.	Epsom
McNair, Jean	Headington
Parry, P. G.	Barmouth Grammar
Plowright, H. D. W.	Prince of Wales, Nairobi
Rikard-Bell, H. P.	Clifton
Roberts, Margaret	Croydon High
Robson, P. A.	Eastbourne
Roddick, I. C.	Whitgift Middle
Ross, B. A.	Cheltenham
Russell, N. C.	Rugby
Smith, B. R. T.	Repton
Sofowora, E. O.	Methodist Boys' High, Lagos.
Steele-Perkins, J. F.	Allhallows
Welch, Ann	Beresford House
Wilderspin, M. P.	Purley Grammar
Willems, P. J. A.	Stonyhurst
Wright, J. G.	Caterham
Young, R. J.	Tottenham Grammar

New Students, Medical School—continued.

2nd Year

Avison, N. H.	Merchant Taylors', Crosby	Ridley, Elizabeth	Bromley High
Barnes, R. D. S.	Worthing High	Roberts, M.	Long Eaton Grammar, Oxford University
Bavington, J. T.	Lawrence College, Pakistan	Shaw, P. C.	Dulwich
Copley, B. L.	Swansea Grammar	Stockdale, E.	Chatham House
Harrison-Bloom, Rosalie	Luckley	Sukhbir, P. A. R.	St. Mary's College, Trinidad
Humphrey, D. C.	Latymer Upper	Terry, M. F.	Eltham College
Liassides, C. M.	University Tutorial College	Tuddenham, H. M.	Kingston Grammar
Morgan, E. B.	Llanelly Grammar	Tyrer, K. B.	Harwich Grammar
Morphy, A. B.	Mount St. Mary's	Warner, Joyce	Putney High
Paul, R. R.	Salesian College	Yetman, D. G.	Tiffin Boys' Grammar

Combined Course

Cohen, L.	Leeds Modern, Leeds University	Marx, R.	Merchant Taylors', Guy's

GUY'S HOSPITAL DENTAL SCHOOL

1st Year B.D.S. Students

Name	*School*	*Name*	*School*
Allarakhsingh, D.	Bhujoharry College, Mauritius	Malik, Sheila	St. Maur's Convent, Weybridge
Boyd, N. A.	Marlborough	Noll, A. H.	Chelsea Polytechnic
Clark, B.	Cranbrook	Overington, M.	Christ's College, Finchley
Collingham, A.	King Henry VIII, Coventry	Pugh, C. D.	Lancing
Cryer, B. Stuart	St. Aidan's College, Grahamstown, S.A.	Redford, K.	Bideford Grammar
Dearlove, W. A.	Sloane, Chelsea	Rivett, D. L.	Perse, Cambridge
Dredge, M. J.	Portsmouth Grammar	Sabel, D. A.	Christ's College, Finchley
Howard, C.	Dynevor Grammar, Swansea	Scantlebury, I. W.	Cranleigh
Howard, L. V.	Durban High, Natal, S.A.	Slee, R. W.	Kimbolton, Huntingdon.
Joslin, Jill	Ursuline Convent, Wimbledon	Smith, W. A.	Audenshaw Grammar
Katisevs, Tatjana	Derby Technical College	Stubblefield, P. J.	Sutton Valence
Kemp, H. K.	Sexey's, Somerset	Symons, G. K. M.	King's College, Wimbledon
		Trezona, J. D.	Brighton, Hove & Sussex Grammar
		Wege, C. H.	Merchant Taylors'
		Woodman, M. J.	Kingston Grammar

2nd Year B.D.S. Students

Barber, R. E.	Bournemouth Grammar	Keane, D. F.	St. Joseph's, Co. Mayo,
Barnard, B. O.	Colfe's Grammar	Langrish, Brenda M.	Wimbledon County
Bengo, S. X. E.	King's College, Budo, Uganda	Lasserson, E.	Bedales
Dagger, Elaine R.	Cheltenham Ladies'	Manning, M. F. W.	St. Paul's
Elliott, Jane	Ursuline Convent, Westgate-on-Sea	Partridge, J. S.	City of London
Evans, Sheila M.	Roedean	Quant, J. A.	Eltham College
Gillon, M. A.	Battersea Grammar	Ewws, D. E.	Cheltenham Grammar
		Sharples, N.	Selhurst Grammar
		Wade, J. K.	Westcliffe High

1st Year L.D.S. Students

Ball, H. A.	Kingston Technical College	Morgan, A. J. M.	Leighton Park
Cooper, R. D.	Tonbridge	Palliser, A. R.	Henry Thornton, London
Grumitt, D. T. McA.	Stonyhurst	Rylance, J. F. H.	King William's College, Isle of Man
Jenkins, T. J.	St. Olave's	Turle, J. G. M.	West Buckland
Knapman, W. R.	*Exeter*	Van Den Berg, J. S.	University College of the Orange Free State, S.A.
Mercer, H.	University Tutorial College		

PAPERS BY GUY'S MEN

Cambrook, John. Integral Derangement of the Temporo-Mandibular Joint. *Med. Pr.*, 1952, **228**, 122.

Campbell, Maurice, Gardner, Frances, and Reynolds, Geoffrey. Cor Biloculare. *Brit. Heart J.*, 1952, **14**, 317.

Chapman, Harold. Double Prognathism in Daily Practice. (Presidential Address, British Society for the Study of Orthodontics.) *Dent. Rec.*, 1952, **72**, 192.

Emslie, R. D. The Ideal Occlusion for Periodontal Health. *Dent. Rec.*, 1952, **72**, 179.

Leverall, John, and another. Ineffectiveness of Local Applications of Adreno-Cortical Steroids in Preventing Effects of Ultra-violet Rays on Human Skin. *J. invest. Derm.*, 1952, **19**, 97.

Forbes, John. Inadvisability of giving A.C.T.H. to Patients with Gastric Ulcer. *Lancet*, 1952, ii, 555.

Holling, H. E. Cardiovascular Research and the Surgery of the Heart. *Brit. med. Bull.*, 1952, **8**, 358.

—continued overleaf

Papers by Guy's Men—continued.

Joiner, C. L. Blood Glutathione Levels and Carbohydrate Tolerance during A.C.T.H. Therapy. *Brit. med. J.*, 1952, ii, 642.

McLean, John W. The Composition and Properties of the Material. (A note to an article by Ivor R. H. Kramer on "Alterations in the Staining Reactions of Dentine Resulting from a Constituent of a New Self-Polymerising Resin".) *Brit. dent. J.*, 1952, **93**, 150.

Rushton, Martin A. Dentine Resorption Repaired with Dentine. *Proc. R. Soc. Med.*, 1952, **45**, 525.

Stevenson, F. Harwood, and another. Temporal Arteritis Treated with A.C.T.H. *Lancet*, 1952, ii, 610.

Teubes, M. N., and others. Results of Treatment of Fractured Mandibles by the Anderson Splint. *Surg. Gynec. Obstet.*, 1952, **95**, 289.

Thompson, R. H. S. Enzymic Mechanisms in Skin. *Trans. St. John's Hosp. Derm. Soc.*, 1952, No. 31 (July), p. 1.

Tillman, W. G., and another. Tropical Lichenoid Dermatitis. *Trans. St. John's Hosp. Derm. Soc.*, 1952, No. 31 (July), p. 17.

Wheatley, David. Antihistamine Treatment in Aural Infections. *Practitioner*, 1952, **168**, 510.

Wright, E. A., Morgan, R. S., and Wright, G. Payling. The Site of Action of the Toxin in Local Tetanus. *Lancet*, 1952, ii, 316.

NOTICES

ST. LUKE'S DAY SERVICE

The Provost of Southwark invites all members of the medical, nursing and other staff and all students of the hospital to a service in Southwark Cathedral on the Eve of St. Luke's Day, FRIDAY, OCTOBER 17TH, at 1.15 p.m.

The service will be over before 2 p.m. in order that people may be able to return to the hospital for the afternoon's work.

It will be attended by representatives of other hospitals and health services in South London.

The preacher will be THE Revd. LESLIE WEATHERHEAD, M.A., Ph.D., D.D., Minister of the City Temple. Dr. Weatherhead is well known for his writing and speaking on the subject of pastoral-medical co-operation and is the author of *Psychology, Religion and Healing*, widely reviewed in medical journals in 1951.

GUY'S HOSPITAL MOTORING CLUB

The inaugural meeting will be held on the 16th October, 1952, at 5.30 p.m. All interested are invited to attend.

The Club is open to students, staff and members, past or present.

Nominations for the committee will be accepted up to the 15th October, 1952.

PASS LIST

CONJOINT BOARD

L.R.C.P., M.R.C.S.
September, 1952

Anatomy

A. H. Atkinson B. L. Dodson
N. D. Gripper

Physiology

J. S. M. Zorab A. H. Atkinson

Pharmacology

G. H. Anderson	Bridget M. Johnson
J. B. Anderson	W. S. Lund
Jacqueline E. Banbury	H. R. B. McCauley
V. H. Bartley	P. A. T. Martin
Audrey J. Belsham	A. G. Mallison
A. Berry	O. Morton
J. R. F. Boger	D. B. A. Ofomata
D. V. Burke	C. W. Pook
C. D. Chilvers	Corinne J. Richardson
R. W. Edmonds	Joan M. Sadler
Joan Endean	P. S. Stack
G. Gover	J. A. Stevens
K. S. Jap	R. M. Stewart
P. Jenkins	C. F. A. Younger

Chemistry

J. P. K. Carver R. G. Cumming

Physics

M. A. O'Reilly B. J. Moore

Elementary Biology

Jacqueline M. Coker

Diploma in Ophthalmology

I. G. Johnston

Diploma in Industrial Medicine

M. D. Warren

CHANGES OF ADDRESS

D. A. Ager, M.R.C.S., L.R.C.P., Latham House, Nottingham Street, Melton Mowbray. Tel. 100.

G. P. Baker, M.D., 57, Fitzjames Avenue, Croydon. Tel. Addiscombe 6762.

H. W. Barber, F.R.C.P., 85, Harley Street, W.1. Tel. Welbeck 9727.

D. G. Bluett, M.R.C.S., L.R.C.P., Clarendon Court, South Park, Sevenoaks, Kent. Tel. Sevenoaks 5139.

S. J. Harris, M.B., B.S., 24, Bentinck Road, Nottingham. Tel. 79916.

P. J. Hill, F.D.S., L.D.S., 45, Berkeley Court, Baker Street, N.W.1. Tel. Welbeck 3016.

J. C. Houston, M.D., M.R.C.P., 49, Harley Street, W.1. Tel. Langham 3475 (Residence, Hillside 3949).

D. N. Leeming, M.R.C.P., 27, Grosvenor Road, Southport, Lancs. Tel. Southport 66529.

D. G. A. Westbury, M.B., B.S., The Firs, Hoxne, Suffolk. Tel. Hoxne 225.

E. A. Wright, M.B., B.S., 30, Roland Gardens, Kensington, S.W.7.

BIRTHS

TRETHOWAN.—On 18th September, 1952, to Daphne (née Isitt), wife of John Trethowan—a son.

TITFORD.—On 27th September, 1952, at Dharma Court, Oxted, to Antoinette and Keith Titford, a second daughter.

MARRIAGES

TUNNADINE—BELLAM.—On 13th September, 1952, at St. John's Church, Bognor Regis, David Tunnadine to Prue Bellam.

WILLIS—WEBB.—On 6th September, 1952, at Holy Innocents' Church, Kingsbury, Stanley Willis, B.Sc., to Esme Webb, S.R.N., S.C.M.

DEATH

OWEN.—On 6th September, 1952, Arthur Owen, Foreman Painter to Guy's Hospital, aged 52 years.

EDS. { E.E.D.T. R.D.W.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1676 18*th October* 1952 *One Shilling*

PASSIM

ON occasions it is difficult to draw a dividing line between loyalty and complacency. Is a certain procedure adopted at one's hospital ? Is a belief religiously cherished ? Is a technique made peculiarly our own ? Then it must be good. There is no need to amend it. Further inquiry is unnecessary. There are, of course, ways of doing things at Guy's which are performed differently outside, but so long as loyalty to tradition is tempered with a certain healthy scepticism all is well. Indeed, as Dr. H. St. H. Vertue remarks elsewhere in this issue, and in a different context, " The right attitude of mind towards a hypothesis that rests upon clinical experience not upon experimental evidence is sceptic . . . "

Nevertheless the danger that loyalty will squeeze out scepticism and give place to complacency is very real. It is, for example, hard *not* to feel a wave of smug satisfaction when the current journal of one of our great teaching hospitals deplores the lack of what may be summarised as social accomplishments among the students there. Where, it asks, are their contributors to the journal ? Where the musicians ? Where the poets ? The revival of our own wall magazine *Pulse* (the progeny of a long line of ancestors the most distinguished of whom was probably the *Guyoscope* fifty years ago) is therefore encouraging. The Christian Union and the Pupils' Physical Society maintain long and worthy traditions. Music and the theatre are well provided for in flourishing clubs—to name only two among many.

Lest these disclosures should somewhat discourage a spirit of self-criticism, another and disquieting feature of the tradition at Guy's must now be exposed. As far as the records extend, the personal notes by the ward clerk on his patient have been some of the most important features of his share in the conduct of the case. These notes record not only the details of the history, signs and symptoms, but also day to day progress, the opinions of the honoraries and all other such information as he or she, as clerk, may feel to be of interest. They form a personal story of a personal patient written in the ward (if not indeed at the very bedside) in the handwriting of the author himself. A visit to the Reports' Registry to examine old case notes will revive again, in the written page, the hopes and fears of those who, in their day, watched, learned and recorded an intensely personal struggle with sickness or distress.

With what consummation of censure, then, shall we condemn the impersonal, lifeless, *typewritten* pages that have on occasion masqueraded as " ward clerk's notes " among the various documents which now identify a patient in the hospital ? At a stroke the intimate record is lost. By their very nature such notes must have been hammered out laboriously far from the bedside : the personality of patient and clerk is thus effectively obscured. As a record they remain a monument, neatly arranged, legible, informative, to the victory of machine over man. Cannot the clerk write clearly ? Then he must learn. Does he find the arrangement of his thoughts in the ward very difficult ? That too can be remedied with application. Is he lost without table and chair ? A continuation sheet balanced on his knee by the bedside is worth twenty complacent copies in carbon.

At Guy's Hospital the tradition underlying the individual notes written by students in the wards is strong. Loyalty to this tradition is, happily, undiminished. The line which must always divide such loyalty from complacency is not tapped out on a machine. It is drawn with a pen.

Mr. Kenneth Starr, M.S., F.R.C.S., F.R.A.C.S., F.A.C.S., who is giving a clinical lecture on 23rd October, is a general and plastic surgeon at Sydney University and a former Hallett and Jacksonian Prize winner of the Royal College of Surgeons. He is in this country to deliver a Hunterian Lecture and to act as examiner to the court of the Royal College of Surgeons.

On September 30th Sister Mary Bentham retired from her position as Assistant Home Sister at Guy's.

She came to Guy's as a student nurse in 1916, and became a Sister here in 1921. Five years later she left to take other appointments and was Assistant Matron at the Evelina Hospital from 1930 to 1932. In 1939, at the outbreak of war, she joined the Civil Nursing Reserve and was appointed Assistant Home Sister at Guy's, a position which she has held for the past 13 years.

Her kindness and friendliness have endeared her to many generations of nurses, and she will be greatly missed in the Nurses' Home. We wish her much happiness in her retirement.

An important new re-arrangement is shortly to take place in the allocation of floor space in the Medical School. The upper two floors, hitherto occupied by the nursing staff, are now to be used by the departments of Physiology and Chemical Physiology. Doyle's House, adjoining Nuffield House, has been re-conditioned after suffering extensive bomb damage in the war, and will provide new and up to date quarters for the nurses thus displaced.

ACADEMIC

October		
		Exhibition. Surgical Department. "The Knee."
20th	1.00.	Mr. Clarkson. Clinical Lecture. "Bad Scars and Keloids."
22nd	4.45.	Science Club. Sir R. A. Peters. "New Light on an Ancient Poison." Staff Common Room. (Tea 4.30 p.m.)
	5.00.	Dr. R. L. Waterfield. Lecture. "Some Points in the Diagnosis of Macrocytic Anæmias."
23rd	5.00.	X-Ray Meeting. Gordon Museum.
	1.00	Mr. Kenneth Starr, M.S., F.R.C.S., F.R.A.C.S., F.A.C.S. Clinical Lecture. "Obstructive and Pancreatic Sequelæ of Choledochotomy."
24th	2.15.	Combined Round. Preclinical Classroom.
	5.00.	Mr. Denis Browne of Great Ormond Street Hospital for Sick Children. Lecture. "Congenital Abnormalities."
25th	10.00.	Clinico-Pathological Meeting. Clinical Theatre.
28th	1.00.	Mr. Blackburn. Clinical Lecture. "Fact and Fallacy in Thyroid Disease."
29th	5.00.	Dr. W. A. Merivale. Lecture. "Practical Aspects of Fluid and Electrolyte Replacement Therapy—I."
30th	5.00.	X-Ray Meeting. Gordon Museum.
31st	1.00.	Dr. Grant. Clinical Lecture.
	2.15.	Combined Round. Preclinical Classroom.
November		
3rd	1.00.	Dr. Rink. Clinical Lecture. "The Open Thorax."
	5.00.	Film. "Fistula-in-Ano and Anal Fissure." Clinical Theatre.

NOTICES

GUY'S HOSPITAL DENTAL SOCIETY
ANNUAL BALL
will be held on
Friday, 14th November, 1952
from 8 *p.m. to* 1 *a.m.*
at
GROSVENOR HOUSE, PARK LANE
Evening Dress Full Buffet
Tickets 25*s.* single from J. Cautley and K. Wilkinson (Hon. Dance Secretaries)

GUY'S THEATRE CLUB
ANNUAL BALL
will be held on
Friday, 21st November, 1952
from 7.30 *p.m. to* 1 *a.m.*
at
BUSH HOUSE, ALDWYCH
Reception by the President and Lady Ogilvie. Double tickets, price Thirty Shillings inclusive of Buffet Supper, may be obtained from :
Hon. Secretary, Guy's Theatre Club, Guy's Hospital, S.E.1.

The Alarming Sunbeam

By H. St. H. VERTUE, D.M.

JUDITH does not enter the book that bears her name until the eighth chapter. She is like the virtuoso, whose first notes are not heard until the orchestral symphony that discusses the preliminary matter has been played, in order that her brilliant quality may at length be the more ardently admired. She is introduced as a widow of exceeding beauty, whose husband, a landowner, had died of sunstroke. "And her husband was Manasses, one of her tribe and of her family, and he died in the days of barley harvest. For he stood over them that bound sheaves in the field, and the heat came upon his head, and he fell on his bed and died in his city Bethulia." Since that book was written in the first or second century B.C., sunstroke must have been recognised for at least two thousand years. It is not a common malady, but it is much commoner than, say, Gaucher's disease or Von Gierke's disease, both of which have their allotted spaces in the textbooks, whereas sunstroke is now often ignored. There is a mystery about it certainly, for it is not known precisely how the sun effects all the mischief that it does; yet the syndrome is clear, consistent and easy to recognise. All the more remarkable, then, that there should be a wide-spread belief that it has no existence. This notion emanated from the military authorities, and I do not share it.

First it is necessary to dispose of two diseases that may be confused with sunstroke, *heat exhaustion* and *hyperpyrexia from heat*. In *heat exhaustion* there is syncope due to a high atmospheric temperature, whether produced by the sun or by a ship's furnace or by any other means. Prolonged, excessive sweating has deprived the body of salt and no chloride is found in the urine. There is an alkalosis, the urea in the blood rises, painful cramps may occur and premonitory toxic symptoms too numerous to mention; the patient then faints and becomes pale and clammy, with a weak pulse and a subnormal temperature. Treatment is by injection of saline. The warmth of an English summer is never so prolonged or so intense as to produce heat exhaustion. *Hyperpyrexia* occurs when the mechanism for controlling the temperature of the body breaks down in a hot climate. Malaria is the most important predisposing cause. In that disease the temperature may rise to 105° or 106°F.; and when it falls, clouds of steam will ascend from the drenched night-gear, if the bed-clothes are pulled back. But in tropical heat the temperature instead of falling may continue to rise. Then the skin becomes dry and burning hot, the face flushed, the breathing stertorous, the patient insensible and before the end convulsions may set in. Cases of hyperpyrexia are treated by laying the patient flat and spreading over him wet sheets, which are kept moist with sprays, until the rectal temperature has fallen to 103° or 104°F.; and by administration of quinine, since malaria is so often responsible. These maladies are highly dangerous; yet neither of them suggests that fatal shaft that slew Manasses in the barley field. Neither of them in fact is directly due to the sun.

Sunstroke itself *is due to the direct action of bright sunlight, which takes* effect—so I suppose—through the eyes; and here is a summary of the symptoms :—

(i) *Syncope*, which may be immediate or delayed for some hours, which may be a fainting and dizziness, or a pulseless prostration, or which may mark the end of earthly toil.

(ii) *Pain in the eyes*, usually moderate or slight.

(iii) *Photophobia*, true, not blepharospasm.

(iv) *Headache*, often intense.

(v) *Anorexia, nausea, vomiting*, less often *diarrhœa*.

(vi) *Pyrexia*, most prominent in children, usually moderate or absent in adults.

(vii) *Irritability*, resentment of any stimulus.

(viii) *Impairment of memory* and *lack of power of concentration*.

Duration. Two days to several weeks.

Sequels. Continued impairment of memory and loss of power to concentrate, persistent headache and intolerance of bright light ; sometimes after severe onset epilepsy, insanity and " distressing intellectual enfeeblement ", if Manson is right.

The best way to clothe these bare bones with reality is to describe a few examples. Take that of Meilichia. The summer in the year that her misfortune occurred had been cloudy and wet, and it was not until the end of August that the sun blazed forth with an unwonted power, finding a people quite unprepared. The temperature was high and the sun's rays were streaming fiercely down, when Meilichia rode through the West End on the top of an open omnibus, with no protection to her eyes and none to her head but a small hat. She arrived home tired and went to bed uneasy. At about two o'clock she woke feeling very ill. She got herself up, and swaying dizzily, purged and vomited. Then, with the room reeling about her, clutching at any object to keep herself from collapsing, she somehow tottered back to her bed and sank upon it, supine and motionless. An intense nausea overcame her and she felt now that her end was at hand. Summoned to her, I found her prostrate and pulseless, in fact in an alarming state ; and when her pulse returned it was by no means strong. She spent the next day in a wretched plight in a darkened room, unable to leave her bed, racked with headache and submerged in nausea ; and whenever she moved, her head seemed to spin and the room rocked. All stimuli were hateful to her : supreme quiet and a passive immobility were her sole desires. After a week she had sufficiently recovered to try a change to sea air. But the journey exhausted her ; the rooms in her hotel would reel about her in a disconcerting way ; she had no taste for food and no capacity for exertion ; she was interested in little and enjoyed nothing. She was better in appearance in three weeks ; but she did not truly feel like herself for six.

Now and again one of our nurses suffers from this complaint, though not, I am thankful to say, with the same severity as Meilichia. When Titan fair his beams doth first display, the maidens lay themselves down upon the grassy ground, the sunbeams bathe their tender limbs and the bright light plays upon their heads. Then there may succeed two or three days of headache, sickness, mild prostration and a desire to be left alone, with sometimes a slight pyrexia. Later in the season the nymph might have ventured with the now familiar god and suffered nothing.

Contrast is an important factor, contrast I mean between present glare and previous coolness and shade. This is well illustrated by the case of Zetetes, which is the most recent in my mind. Zetetes came to join me on a summer's holiday from a world of cool and cloudy weather, from a garden of netted light and shadow.

Ἀμφὶ δὲ ψῦχρον κελάδει δι' ὔσεων
μαλίνων, αἰθυσσομένων δὲ φύλλων
κῶμα καταρρεῖ.

Sappho.

" Round about the cool breeze murmurs through apple twigs, and from quivering leaves slumber streams down." No greater contrast could be afforded than by the resort that we had chosen, a little town in South Devon, where the vivid red cliffs facing the south support a Mediterranean vegetation of Mesembryanthemum and Cineraria maritima, where arum lilies flourish in cottage gardens, geraniums climb up the house-wall and greenhouse Fuchsias form bushes out of doors. It was at the time of the solstice when Zetetes arrived. Every vestige of cloud vanished immediately and the sun flashed from a heaven of Mediterranean blue with the utmost splendour that we in England ever know. Each day and all the long day the god, crowned in blazing light and majesty, slowly swept across the cloudless sky.

The blaze upon the waters to the east ;
The blaze upon the waters to the west.

Tennyson.

Furit ignibus aequor eois,
Terra furit mediis, furit excedentibus aequor.

Jebb.

Zetetes, who had not thought to bring a hat, fell ill after one day of it. Yet it is to be observed that the temperature of the air was not higher than could be born with comfort, for the sea kept it fresh. Here then is an example of what has been called, uncouthly enough, " direct sun-traumatism ".

First, he disliked it in the morning when the chambermaid pulled up the blinds ; next, through the day came darting pains behind the eyes ; by evening he felt chilly, in spite of the weather, and unwontedly fatigued ; and when night came, sleep deserted him. The pains in his eyes grew worse and magnified themselves into an ache that occupied his entire cranium ; dawn filtered through the blinds, and wave after wave of horrible nausea assailed him ; day came, and he lay motionless on his bed. When I visited the patient I found him in a half-stuporous state, with a tongue that was coated and a slight hyperæmia of the conjunctivæ at both inner canthi : but those were all the signs. He disliked bright light, noise, movement, questions or any stimulus. His kind attendant was certain that he was suppressing irritability ; but so deft and tactful was she, that he had no chance to show it. He seemed to improve a little when evening came, and presently he fell asleep ; but woke at midnight with a headache of renewed intensity and a ghastly fancy that he had been shut up in a burning tomb. Twenty grains of calcium aspirin, which he managed to keep down, at length procured a fitful sleep. The next day he felt somewhat better, got up and very slowly dressed himself, with movements that reminded me of some tortoise of monumental age, for whom time scarcely exists. Gradually, day by day, strength returned ; anorexia gave way to appetite ; the tongue cleared ; headache lifted, first in the evening and then in the morning as well ; energy became more evident, and in a week he went home, prematurely in my opinion.

Zetetes was asked to report his subsequent progress. He said that he readily felt tired, but that what he resented most was his want of mental energy. He would go to a room to fetch something and forget what it could be. He would climb to the top of the stairs and wonder why he was there ; would begin a remark and never finish it ; or would forget the words that were to conclude a sentence and end his speech in a mumble. He forgot names, he lacked decision, he entertained no ideas and he wanted enthusiasm. The motions of memory in his mind were repaired in a fortnight ; but it was five weeks before a dull, overhanging haze departed, leaving him in full health of body and enjoyment of mind. Impairment of memory and loss of power of concentration are well recognised features of sunstroke. They were described to me in another, a shorter case, contemporary with that of Zetetes. Manson too emphasises how troublesome they may be and sometimes how long-lasting.

By one of those coincidences that are so common in medicine the first patient whom I examined after returning home ascribed his illness to sunstroke. He was an elderly man suffering from epilepsy.

" How did your fits begin ? " I asked.

" Sunstroke."

" When did that occur ? "

" In 1916 in Mesopotamia."

" How did it happen ? "

" Some fool knocked me topi off."

" And then ? "

" I went straight down. I don't remember nuthin' of the next two days."

" You've had fits ever since ? "

" And terrible headaches. Many a time I've wished I was under ground."

Of the stroke of the sun that brings you to earth I have had experience myself. I was a schoolboy aged about fifteen at the time. I had finished dinner in a rather dark hall, which the sun's rays did not visit until later in the afternoon, and thence I went down a long cloister, at the end of which I emerged through a small door facing south, and met the June sun face to face in full glory. Instantly I sank to the ground helpless and was borne up by the boys and carried

back the way I had come, protesting feebly until, like a famous comedian, " I knew *no* more." When I came to myself, I was lying on a couch in the matron's room, where I remained for hours, dizzy and prostrate, retching and vomiting exiguous quantities of green bile. With such an experience behind me I find no difficulty in accepting the old soldier's narrative. The connection between his epilepsy and his sunstroke is only an assumption, which many would reject ; but it may quite well be correct ; for if solar injury can so much disturb the working of the brain, it may well bring to the surface a latent epilepsy, somewhat as a mechanical injury will do.

Next, one may ask, what is the nature of the injury ? To account for the phenomena of sunstroke I suppose that there is a nocuous stimulus, sunshine of unwonted brilliance, that the receptor is the eye, and that as the result of it nervous impulses travel up the optic nerves to the brain and disturb its working, but only in a few individuals. In considering the injury not too much stress should be laid on ultra-violet light, which causes chiefly an *external* inflammation, for the reason that, whereas all visible light reaches the retina, very little invisible permeates the vitreous. After bright light has struck the retina, the reaction changes from alkaline to acid and the visual purple is bleached ; the arteries and capillaries contract and the intra-ocular tension falls ; and the sensitivity to light diminishes. The last phenomenon is a matter of common experience, embodied in such phrases as " blinded by the glare ". It may easily be observed by staring at an unshielded electric bulb : an after-image is then seen in the dark and some degree of scotoma appears in a dim light. Let the stimulation be sufficiently over-intense and the subsequent defect of vision becomes permanent, as it does in " eclipse blindness ".

Recently a patient came to me with a train of symptoms that had a familiar ring—lack of power of concentration, suppressed irritability, headaches every morning and at the close of the day's work, and eyes so sensitive that they demanded tinted glasses in bright sunshine. In the past he had fallen into the hands of a half savage foe, the Japanese, and his barbarous captors had forced him to kneel for three quarters of an hour with his eyes fixed on the tropical sun. Mr. Lorriman examined his eyes and found the vision in one reduced to $\frac{6}{9}$ths and in the other to $\frac{6}{18}$ths, but without discernible damage to the structure.

Bright light, then, can injure the eye and can give rise to persistent cerebral symptoms, even though the actual nature of the injury is somewhat obscure. Sunstroke occurs at times when such an injury is threatened. It resembles sea-sickness in that the vomiting and vasomotor centres are involved, but it is more capricious (though sea-sickness too is variable in appearance) and it is much the less common. The headache, the stupor and the numerous troublesome sequels give it also a striking resemblance to concussion from a blow. The eye itself suffers little visible damage : there may be some watering to bear witness to it and there is usually a true photophobia, that is a dislike of bright light and a tendency to screw up the eyes in the face of it ; but there is not the blepharospasm of an inflamed eye. The receptor may be slightly painful, but the nocuous stimulus itself is not perceived as painful, because the optic nerves do not convey that sensation.

Similarly, sea-sickness is not painful because the vestibular nerves are not a path for pain. The *headache* that is felt is a common accompaniment of irritation of the visual apparatus, for example by the flickering light of the bioscope, the landscape seen from a train, the glare of a snowfield or the strain of an uncorrected astigmatism. *Vomiting* is also commonly associated with such disturbance, as for instance in train-sickness or in migraine. Neither of these symptoms, therefore, presents any difficulty. The *collapse* that occurs is common in the analogous disease sea-sickness ; but the sudden syncope that is sometimes the dramatic feature of sunstroke requires a further attempt at explanation.

I invite for this purpose attention to the myth of Protagoras, which was enunciated in the fifth century B.C. Once upon a time there were gods only, until the Titans, Prometheus the Forethinker, and Epimetheus the Afterthinker, were ordered to fashion mortal beings. It was the latter's task to

equip them with the necessary qualities and the former's to inspect the results. Some creatures Epimetheus fashioned with fangs and talons ; others had great size and strength ; or they were given fleetness of foot, that they might escape, or wings to fly away with ; and some were small and had power to burrow in the ground. Then there were those that were prolific, upon whom others preyed, but they could not increase so fast. Thus in various ways they were prevented from destroying each other. And against the weather he provided them with fur and tough hides and feathers, and against the earth with thick soles, pads, claws and hooves. In such ways he saw to it that the races survived. But not being very wise he used up all the valuable things that he had on the animals and there was nothing left for man, who was defenceless.

When Prometheus came to inspect what had been done, he was horrified, and returning to heaven, he rifled the forge of Hephaestus and the workshops of Athena, bringing to men fire and the arts. But still they were unable to protect themselves sufficiently against the beasts, and they gathered themselves into tribes and congregated in cities ; but having no notion of treating each other aright they were in no better case than before. Therefore Zeus, seeing that mankind was about to be exterminated, sent down the herald Hermes to distribute virtue among mankind. " Give it to all ", he said, " for states cannot exist, if only a few share in the virtues ; and further make this law, that he who has no virtue and rebels against reform should be put to death." Therefore it was through the intervention of Heaven that man was saved, throve and increased mightily. Let him, then, remember the commands of Zeus : he who tampers with human responsibility is himself a menace to the state.

Yet notwithstanding the offices of Zeus and the good Titan Prometheus, man is still what Epimetheus made him. Imagine a scene in that early world where some swift and powerful beast of prey has descended upon a herd of human beings. One seeks to escape, but the marauder bounds gleefully after him and returns licking his jaws, to be attracted next by yonder wriggling morsel, who is also devoured. But here is another helpless creature, who has fallen as though dead, befouled it may be with his own vomit, and he escapes attention and survives. The posture that he has adopted is a mimicry of death, which can be readily observed in a spider, if it be alarmed. Alarm indeed is a good word to describe the reaction, for it means " To arms ! " and implies both danger and defence. Now substitute for a ferocious carnivore threatening life that fiery dragon the sun threatening the eye, and for alarm about all the members alarm about one that is delicate and vitally important—and you have an explanation of the syncope of sunstroke. Those who suffer from sunstroke now had ancestors in the past who at the roar of the sabre-toothed tiger or the trumpeting of the woolly mammoth fell flat and remained as though dead, until all danger was past, when they would creep away, dizzy and sick, and feeble as a robin rescued from the clutches of a cat. Anon they would resume their ordinary avocations, among others the wooing of the savage spouse.

Et Venus in silvis iungebat corpora amantum.

They, and therefore their descendants, had been preserved by an inborn reflex. But this reaction, useful in the past, is not always beneficial now. Epimetheus, as we note, was not remarkable for foresight ; nor was he a sufficiently good designer to ensure that the reflex should only occur when it was really necessary : indeed it may have arisen by accident and not by design. When it occurs in sunstroke, it seems to be of little use : it is something ancient and obsolescent, emerging capriciously, independent of the will and no longer of survival-value. Similar symptoms—prostration, headache, nausea, vomiting, weakness—can be called forth by other menaces, such as the burden of responsibility, dread of failure in examinations, sheer fatigue from overwork and the like, all provoking alarm in the sufferer, but in that case sometimes with benefit, since he is forced to rest. If such a person were idle or indifferent to responsibility or careless about the future, his reflex response would not have been provoked. It seems still necessary to mention that the technical terms of psychology should *not* be fastened round the neck of such a virtuous being.

Some of the vagaries of this reaction can be understood more fully and more easily if we adopt the convenient concept of higher and lower departments of mind, corresponding to newer and more ancient parts of the brain, each under the other's influence. Even to the rational man of today sunshine of unwonted power has something about it that makes him uneasy or that promotes a feeling of awe. Deep down perhaps he entertains the feeling more strongly than he is aware. Why, it is but a paltry few hundred years since the Lord of Heaven, the Father of the Gods, was Zeus, the Shining One, who with his flaming bolts could split the unwedgeable and gnarlèd oak and punish the evil-doer with instant death. Therefore the cells of those ancient reflexes, played upon by influences from above, are more likely to spring to attention when it is sunlight that is the source of the nocuous stimulus than when it is artificial light. Similarly, heat will predispose to sunstroke, being in itself oppressive and being also associated in mind with the great orb that sucks up the pools, scorches the vegetation and drives all living things to seek shelter.

Sometimes, as we have seen, the stimulus is brief and intense and the response dramatic, sometimes there is a summation of stimuli and a lapse of time before the response occurs ; but in either case it is when the bright rays are a novelty that they are most alarming. The native of a sunbaked land is less liable than the white man and the old resident than the newcomer ; but he who has suffered once is expectant and may suffer again. The old soldier whose topi was knocked off in the blinding glare of the Mesopotamian sun went down like an ox ; but then he had been led to expect dire results if such a thing should ever happen. To be habituated to the glare is to be more likely to endure it unperturbed. Women never wore topis but only shady hats ; and yet there was no difference between the sexes in the incidence of sunstroke. It is sensible therefore to abolish the cumbrous topi and substitute a hat ; and I dare say that men could be trained to go unprotected in time, with only a small incidence of sunstroke, and a net saving in trouble, transport and expense. In the last war this was the method adopted ; and it led to the erroneous belief that sunstroke does not exist. " The topi was designed to protect against sunstroke : it has no noticeable effect upon sunstroke : therefore there is no sunstroke." That proposition may have been honest, but it was certainly not logical.

The rise of temperature in sunstroke is not difficult to explain, since it occurs especially in children, in whom pyrexia is a common accompaniment of disturbance of the nervous system. Many a Cameronian nervous child for instance was deprived of its tonsils for feverish attacks in days gone by, when over the door of the Ear, Nose and Throat Department in most hospitals was inscribed the motto from Ennius, *Tonsillas Rapiunt*. In sunstroke the nervous system is much disturbed : accordingly the temperature may be elevated. A little boy was brought to me in July, in whose case the diagnosis of mild sunstroke was not difficult as he stood blinking his eyes at the window. The rectal temperature of that child was 104°F. ; yet in two days he was well, without ever evincing a sign of infection. It is of course necessary to be on one's guard. Doubtless meningitis of an unspecific kind has been mistaken for sunstroke by the acute observers of the past, who were unaware of a form of that disease not then described. Ice to the head and drawn blinds would give place today to aureomycin, with more satisfactory results.

I have kept to the end the strangest feature of all in sunstroke, its resemblance to concussion. The headache, the dizziness, the vomiting, the blunting of consciousness, have a decided likeness to the results of a blow on the head : the after-effects seem to be identical—the loss of power of concentration, the derangement of memory without derangement of the reasoning faculty, and the continued headache. And in both cases these sequels may spontaneously disappear in a short time ; or they may persist awhile and vanish later ; or they may be permanent. In the last event the brain seems to have lost the capacity for smooth and normal working ; wherefore its owner is condemned thenceforward to a miserable life. Epilepsy may declare itself after both mishaps, if Manson is right, and he usually is. We can at least draw a conclusion from these facts : one who has suffered a bad sunstroke is in some respects like some one who has had a spill from a motor-bicycle or been involved in a car-smash,

and needs similar care. Cautiously we may make another inference : there is a particular faulty pattern of working into which the brain may be forced by two such different provocative agents as a mechanical blow and a shaft of brilliant light. In neither case must we look for too close a correspondence between cause and effect, nor must we stigmatise the brain nor blame its owner because we cannot comprehend the one nor relieve the other. " Neurotic " is the term of disparagement usually employed, a piece of jargon often used without much thought and without much humanity, and sometimes with disastrous sequels. I have come to regard it myself with dislike and suspicion.

Treatment of sunstroke is simple. The patient lies in bed in a room from which all noise and all bright light are excluded. At first at least he requires no food and only desires to be left alone. Nursing should be after the pattern of Dame Brisen's. " Sir," she said, " we must be wise how we deal with him, for if we wake him rudely what he will do we know not ; but I shall throw such an enchantment upon him that he shall not awake within the space of an hour." And so she did. (*Morte d'Arthur.*) Calcium aspirin is the only drug of value; alcohol is notoriously bad ; and phenobarbitone is foolish meddling. For a serious syncope an analeptic would be necessary, but in general they are to be avoided because they are cerebral stimulants. To prescribe " Avomine " at the onset of symptoms would be an interesting experiment, which I await the opportunity to try. Convalescence must be adequate. The normal working of the brain has been deranged and, until it has been restored, rest for the organ is advisable. It will be useful to remember what would be done in the case of a mechanical blow. I emphasise the matter because of the present tendency to make nothing of the disease.

Dark glasses protect against sunstroke, but they are ugly things, too reminiscent of badges, beggary and concertinas. Under ordinary circumstances a shady hat affords enough protection, and to a woman is becoming. It is only in cases of susceptibility, especially when the sun's rays are being encountered both from above and by reflection from the sea, that dark glasses are required. Whatever the precaution taken, the time for it is when cloud gives place to glare or the inland to the seaside.

Such, then, is the hypothesis of sunstroke : that it is an erratic, exaggerated response, with its roots in the past, to a nocuous stimulation by sunlight through the optic nerves, exhibiting features for which parallels can be found in other forms of cerebral irritation, whether arising from the eye itself, the organ of balance or a blow. The right attitude of mind towards a hypothesis that rests upon clinical experience not upon experimental evidence is sceptic, the word being used in its true meaning as a derivative of σκέπτομαι, I look about me, I form an opinion—but I do not positively assert. Scepsis keeps the inquirer in mind that the still image of Nature, set up by many out of a craving for stability, does not truly represent one whose lineaments (discerned with difficulty like a Greek bride's διὰ λεπτῶν καλυμμάτων, through the fine meshes of her veil) seem ever to be varying. The hues of dawn and evening, the shapes and colours of the clouds, warmth and the glad sunshine, storms and bitter cold, are things that recur but are never the same.

Man's behaviour is still more unpredictable and complicated. The physician, like one who has mounted a dais in a great hall, beholds the sea of faces of those to whom his aid is promised ; and no form that he looks down upon is identical with any other. But Order is his marshal and Likelihood his steward, and with their aid he gets to work. Beside him he notices a varlet with a brush and a pot of glue in his hands, bearing a certain likeness to himself in younger days, who seems bent on pasting a label on every member of that crew. Having sent the fellow back to his quarters, known as the Examination Hall, the physician adjusts his philosophic robe and once more surveys the scene. Mutability, he recognises, rules all things here and he honours her for her beauty, knowing that without her his art would be dull and himself—ha ! what is it ?—a " technician " ! Permanence is an idea and has reality as such.

CORRESPONDENCE

Pertussis in Children

SIR,—In your issue of 12th July you gave a report of a clinical lecture by Dr. Mac Keith on " Cancer in Children ".

On page 279 we read, " Table VI shows the *incidence* of certain common infections . . . ", but on looking at Table VI we find, " Deaths : children 0–15 years of age ", which is quite a different thing from incidence. The table also fails to state whether these figures are for the British Isles, England alone, London, or where ; or whether they are total figures, or deaths per so many thousand of the population.

Apart from these discrepancies, however, what really surprised me were the relative figures for deaths from pertussis, measles, and diphtheria—525, 288 and 67 respectively.

The fall in the incidence and mortality of diphtheria due to immunisation can be accounted for, but that pertussis should have a death rate nearly twice as great as measles is indeed astonishing. I have been in practice since 1913 and have never yet seen a child die of pertussis. It is true that practically all of my experience has been in South Africa and Kenya, where both measles and pertussis are much less likely to develop complications than in English winter conditions, but even so I should have expected that measles would have shown a death rate considerably higher than pertussis.

I should be interested to know, if possible, to what this high death rate in pertussis is due, and incidentally to put in a plea for more use of vaccine in the treatment of this disease. Vaccine may not necessarily reduce the actual length of the illness, but what it does definitely is to reduce the number of coughing paroxysms very greatly, which means that the child is able to retain more nourishment and suffers far less from exhaustion.

Yours, etc.,

Pietermaritzburg,
Natal, South Africa.

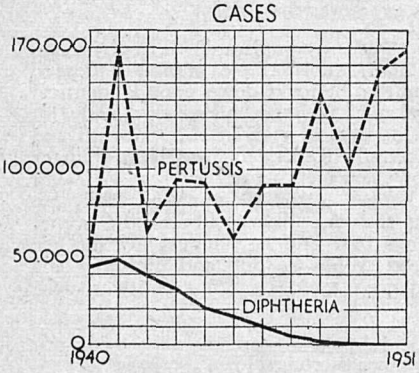
G. DUNDERDALE.

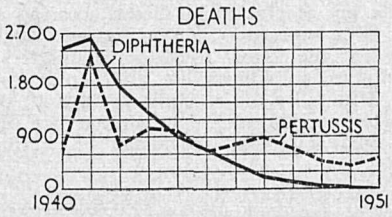
Dr. Mac Keith writes :—

SIR,—Dr. Dunderdale's letter is most welcome. Firstly, let me say that although the Concise Oxford Dictionary (1934) says incidence means " range, scope, extent " it would have been clearer if I had written :—

" Table VI shows the number of deaths in 1949 in England and Wales from certain common infections."

It *is* surprising to many of us to discover that the number of deaths from pertussis, measles and diphtheria were respectively, 525, 288 and 67. (The relative importance of pertussis appears in the U.S.A. too.) In this country pertussis kills more than all the other specific contagious fevers added together. The deaths from other illnesses have





been falling, from secular variation, public health measures, improved treatments and improved nutrition of our children. There is not this improvement in regard to pertussis. It is chiefly infants under a year old who are killed by pertussis. They die as Dr. Dunderdale says, of pneumonia, of exhaustion and of malnutrition.

This problem can be tackled by prevention and treatment. Some of the newer antibiotics are active against the hæmophilus pertussis. This organism is present in the first two or three weeks of the illness, in the catarrhal stage before any typical paroxysms are seen. We have to make the diagnosis without waiting for a whoop if we are to attack the causative organism, and many babies with pertussis never whoop even if they are badly ill. We look out for a persistent cough, occurring more in the night than the day, making the child red or black in the face, perhaps making him vomit or cough up phlegm. Children cough sputum out in only two illnesses, bronchiectasis and pertussis. I would have said that most reports say pertussis vaccine is not useful in treatment. It takes some months before a useful amount of antibodies is produced in response to the infected vaccine.

The difficulties in diagnosis impede the efficient use of antibacterial drugs, and make us more than ever anxious to prevent this killing illness. With three doses of a good vaccine given at monthly intervals, sufficient immunity can be obtained to make complete protection four times as common as in controls (M.R.C. Investigation, 1951 ; *British Medical Journal*, 1463). In addition the illness when it does occur in the vaccinated is a good deal less severe. (Cruikshank, R. (1952), *Proc. Royal Society Medicine*, **45**, 621). Pertussis vaccination should be started early, at the fourth, fifth and sixth month and may well be combined with anti-diphtheria inoculation. Rarely it is followed by encephalitis but this serious complication is largely avoided by not giving the vaccine to infants with a history of fits. Such an infant can to some extent be protected if he is not exposed to his older siblings when these have coughs, for the school child with a mild attack may bring the hæmophilus from his school to the infant's nursery.

This protection is not as complete as for diphtheria by immunisation, but using a good vaccine vaccination against pertussis is well worth doing, for pertussis is one of what R. E. Smith has described as the inevitable infections of childhood, and it is an unpleasant illness to have or for a parent to watch.

Yours, etc.,

RONALD MAC KEITH.

(The illustrations were drawn by Miss S. Treadgold of the Department of Medical Illustration, Guy's Hospital.)

Guy's Hospital Christian Union—Autumn Term Fixtures

SIR,—The Christian Union wishes to draw attention to two meetings of special interest to be held during the Autumn Term.

The first is a showing of a new film of the popular " Fact and Faith " series, entitled " Hidden Treasure ". The meeting will be held on Tuesday, 4th November, at 5.00 p.m. in the Physiology Theatre, Medical School. Dr. R. L. F. Boyd, I.C.I. Research Fellow at University College, London, will introduce the film.

The second is a talk on the true significance of Christmas, entitled " Carols by Candlelight ", by the Rev. M. A. P. Wood, M.A., on Tuesday, 16th December, at 5.00 p.m., in the Preclinical Classroom (4th floor of Outpatients').

Members and friends should note that the weekly afternoon meetings are being held on Tuesdays and not on Thursdays as hitherto. They will be at 5.00 p.m. in the Preclinical Classroom.

In consequence of this alteration, lunch-hour Bible Study Discussions are being held on Thursdays at 1.05 p.m. in the Chapel Crypt.

The Christian Union welcomes people from all branches of hospital life to these and other activities. Current information may be found on the Notice Boards in the Colonnade, Nurses' Home, and the Crypt, or may be obtained from the undersigned.

Yours, etc.,
M. J. ATWILL,
Secretary.

The Biennial Dinner

A RECORD number of old Guy's men assembled in the Grand Hall, Connaught Rooms, on Friday evening, October 3rd, for the Biennial Dinner which, on this occasion, was under the Chairmanship of Sir Geoffrey Marshall. The menu, decorated in the Hospital colours, contained a list of all those attending, and as table numbers were also indicated this made it easier for old friends to make contact after the meal itself was over.

The Toast List comprised three items :—

Her Majesty the Queen.

Guy's Hospital and Schools.

The Chairman.

The fact that these toasts (according to the menu) were to be " submitted without speeches " in no way deterred the Chairman from remarking, in proposing the second toast, that Guy's was " tough "—" looking round ", he said, " it's tough—Guy's will leaven the lump " (cheers). Nor indeed was Professor T. B. Johnston any less daunted in making what might thus be described as a public pronouncement in parenthesis, when he proposed the health of the Chairman. Sir Geoffrey, he said, was, in addition to being a remarkable man, a wonderful leg-puller, a Bohemian, who might have been a great anæsthetist but chose instead to become " a not altogether inexpensive physician " (laughter). " We all bear a great deal of affection and admiration for him." (hear, hear.) The Chairman's health, proposed and drunk in the formal manner, was followed by a pause while the diners resumed their seats—only to leave them again as a spontaneous gesture in singing " For he's a jolly good fellow ", followed by three resounding cheers.

The Chairman, in thanking Professor Johnston, remarked amid laughter, " I always feel apprehensive when he gets to his feet." He then called upon Mr. O. Gayer Morgan, the Honorary Secretary, who said that the record gathering was a tribute to the organising work done by Mr. J. H. E. Winston (cheers). They had received many letters from old Guy's men who were unable to be present and he suggested to the Chairman that a further toast might be drunk to " Absent Friends ". To this Sir Geoffrey readily agreed.

The remainder of the evening was pleasantly spent renewing old friendships in a convivial atmosphere that the bar—open till midnight—did nothing to subdue.

SPORT

The Cricket Tour, 1952

RENEWING an old Hospital custom, the Cricket Club once more went on tour over the August bank holiday. The side was based on "Thatchings" much to the dismay of many other people, and four games were played. The first against United Services, Portsmouth, was unfortunately rained off after 30 minutes play ; of the remainder one game was won and two lost.

As might have been expected, festival cricket revealed the less serious nature of our players, but this did not prevent large gatherings at Bognor and Chichester from enjoying the spectacle of some very bright cricket. So bright in fact that all were decided by the tea interval, giving rise to the traditional "beer match" in every game. This was neither deliberate nor intended, but nevertheless great fun.

Of the play, unquestionably the best cricket was seen in the Bognor game. The Guy's innings opened very quietly against some very steady bowling, and when Blake and Cooke had somehow scored 32 in the first hour, Blake failed to stop an inswinger. A further six wickets fell for another 20 runs and had us all pondering over the post-operative potency of vintage cider. Fortunately Lyon and Cahill were picking out the right ball from the many that were presented to them and at luncheon we were 82 for seven.

Five hours to play and not a drop of rain in sight. One dry character (literally) suggested that the many bowed heads were praying for rain, but little was it known . . . . . .

Well fortified by lunch and a quiet doze, our great rearguard action continued, with Lyon and Cahill producing shots from all the cricket books not yet written, until we had 120 runs in the book. Lyon was well caught in the deep for 29, being shortly followed by Cahill, stumped for a very valuable 41. Parry joined Willis, but the latter offered only token resistance and the innings closed for 132.

Argument was rife as to whether this total was sufficient on a plumb wicket, but despondency was voted out when Lyon was seen to get a wee bit of life from the wicket. Fire, brimstone, six slips and the ball lifting head high—magnificent stuff and Lyon making the most of it, with eight overs, six maidens, four wickets, for five runs in his first spell ! He was ably backed up by Trist with two for 13, and Bognor was still not conscious of what was hitting them. The tea interval was taken with our opponents 21 for six.

After tea Cooke heartened us all by declaring himself fit to bowl, and was allowed to do so with little result. Following some slow, straight stuff by Willis, who took two for five, Lyon finished the innings for 35 with a personal analysis of five wickets for 11 runs.

As always at Bognor the Guy's fielding reached a high standard and many fine catches were taken.

Now for the "beer match" of one hour apiece. Guy's batted first and rattled up 112 runs, thanks largely to Parry who made 30 and Cooke with 21. In passing it might be added that everyone seemed in a terrific hurry to come out so that he could have his photograph taken. Fortunately the prints weren't coloured.

Bognor now took part, and revenge. To the length and breadth of Blake, Gibbons and Howells, they showed little respect, and after Cahill, Parry and Williams had all tried their wrong overs, it was mere formality that Lyon bowled the last over of the day to eight slips, no wicket-keeper and a chorus singing "Dry Bones", which appears to be the club theme song.

So eventually to Monday, and Chichester of historic interest and friendly appearance. The Priory Park provided a large crowd, intent on seeing a struggle ; for the first two and a half hours they certainly saw one. Put in to bat, Guy's were in difficulties from the first ball—Cooke being clean bowled.

Blake, captaining the side in his last game for the Hospital, was left to look for a partner, and three further wickets fell before Willis arrived to stem the tide and help his skipper. With plenty of concentration Blake and Willis stopped the rot and 42 runs were added before Willis left at 69 for 5. With 10 minutes to lunch Howells came in and somehow managed to stay.

After lunch, there was yet another uphill fight for runs, with Blake doing most of the scoring until he was clean bowled at 104 for six—Blake 59. The innings didn't last much longer and we were all out for 120.

Alas ! this was no Bognor, and the Chichester openers Avery and Davey put on 95 against bowlers who one and all looked as if living was decidedly troublesome and bowling unthinkable. After Avery had left, Davey went serenely on to give Chichester a win by nine wickets. Our batting, bowling and fielding had sadly reflected our feelings of well-being.

There was still the "beer match" of 12 overs a side, and to our varied attack the Park totalled 96. That was obviously not enough to present to a side feeling the delayed action effects of Merrydown cider and 99 runs were on the board with four balls to spare, Robinson ending the game with a magnificent six which cleared the county scoreboard.

Thoughts were now of home-going and of Merstham, our last fixture on the way back. Maybe it was the change of air, or was it having bowled Merstham out for 79, that we took it too light-heartedly and were ourselves put out for 51, Howells alone having any luck, scoring 34 off the edge ?

As usual we vindicated ourselves in the " beer match", and many a sigh was heard when the last ball was bowled and everyone retired to the " Feathers " for a small tonic.

Once more the tour was over, and although extremely weary at the end of it we are all determined to go next year so that we can inscribe " Guy's " once again on the Bognor Trophy.

So the covers are down on the cricket season for 1952, and although we were knocked out of the Cup, the spirit in the club has been magnificent, and if emulated by the rest of the Hospital, Guy's would certainly once more attain its rightful place in the sporting world.

Those playing on the tour were :—

W. J. Howells, N. R. Cooke, D. E. Blake, W. A. Cahill, A. d'A. Fearn, M. A. C. Lyon, M. Willis, E. R. Gibbons, T. Smith, F. H. Trist, D. Parry, C. F. M. Robinson, D. Lippington.

RUGBY FOOTBALL

Guy's *v.* United Services (Portsmouth)

At H.O.P. Result—Lost 30—8.

On an ideal afternoon for rugger, Guy's suffered their first defeat of the season at the hands of United Services. From the first scrummage of the game the Services' fly-half was presented with a gap when the Guy's wing-forward tackled his own fly-half ; he promptly put the ball under the posts and Guy's were 5 points down. As Kirkbride had to leave the field at the same time with a hand injury one felt the writing was on the wall ! The Services continued to attack and the embracing methods of tackling exhibited by the Guy's defence made their backs look a dangerous force. But even so the Rugby League centres were unable to get their men away and it was left to the defensive errors of Guy's to give away the points. Twice again the Services' fly-half was presented with a gap through which he ran and Guy's were soon 15 points down. Guy's were, however, getting their fair share of the ball and the territorial advantage was with them, but they were unable to break through particularly as they relied on the kick ahead as their principal weapon of attack.

In the second half Guy's opened with a little more fire in the forwards while the backs placed more faith in handling the ball. These methods yielded results quickly when the full-back joined the centres to get the wing, Thomas, away. Thomas continued the movement with a swerving 50-yard run to score a fine try which Howells converted. The forwards then pressed with a renewed spirit and forced the Services to give a free kick away in their 25. Howells supplied the points and with the score 15–8 the hopes of the Guy's spectators rose. But they were soon dashed when the Services' forwards carried the ball to the Guy's line and from the resulting scrum a gap was left again for the fly-half, and five points went with it. A few minutes later the process was repeated and with Guy's 25–8 down the prospect seemed hopeless. But to their eternal credit Guy's kept playing hard and well, throwing the ball about in a confident fashion. To fill our cup to the brim, Howells chose to fall on his back while fielding the ball and a Services forward was up to put his hand on it ; and the points against rose to 30 in the dying minutes of the game.

Guy's were deservedly beaten by a team far stronger behind the scrum but, one feels, scarcely thirty points stronger. Still Guy's must learn that silly mistakes cost points and, in this case, all the work done by a Guy's side which played good rugger for 90% of the game was thrown away by defensive errors in the other 10 %.

HOCKEY

Results

Saturday, 11th October, 1952

1st XI *v.* Rochester and Gillingham

At Gillingham. Result—Lost 0—6

2nd XI *v.* Rochester and Gillingham

At H.O.P. Result—Lost 2—6

3rd XI *v.* Rochester and Gillingham

At Gillingham. Result—Lost 0—7

Sunday, 12th October, 1952

Six-a-Side Tournament

Organised by the National Provincial Bank Athletic Association Hockey Club, at Lower Sydenham.

The Guy's team produced a fine display to emerge as runners up to Woolwich Polytechnic in this contest, in which some of the leading London district clubs were also taking part. Each game consisted of seven minutes play each way, and each team played a minimum of four games. 20 clubs, divided into four groups, competed, and the winners of each group became the four semi-finalists.

Guy's met Barclay's Bank first of all, and soon settled down to fast open hockey, and were quicker and steadier in most aspects of the game. Our next opponents were the Old Beccehamians, whom we beat by a similar margin. Although there were awkward moments, Guy's goal was never seriously menaced.

Against Bromley on the best pitch, Guy's struck their best form of the afternoon, and this game produced some fine open play, with the ball swinging from end to end. After maintaining steady pressure, Guy's were victorious late in the game through good following up from a penalty corner.

After a brief rest, Guy's then resolved to pull out everything against the redoubtable Hawks, still smirking from having won the tournament last year. We were under considerable pressure most of the game, but the defence remained remarkably steady, though we rarely looked like taking the lead. By holding them to a draw, Guy's became winners of the group, the Hawks already having drawn a game against Bromley.

Thus we found ourselves in the semi-final, to play Spencer on one of the outer pitches, not conducive to good hockey. Having withstood the initial onslaught of our opponents, in which three penalty corners were notched up against us, we were rewarded by two quick goals. Spencer came back and scored, but we were "saved by the bell", defending grimly and, at times, frantically.

So to the final against Woolwich Polytechnic and the formidable prospect of battling 10 minutes each way. An early injury coupled with blistered feet and a chronic oxygen debt weighed steadily against us. The Polytechnic pressure was relentless, and we were forced to concede three penalty corners. This, in fact, decided a goal-less issue, and was something of an anti-climax.

Guy's therefore became runners-up and, looking back, could claim to have put up a valiant show. The defence was consistently steady, with excellent covering and tackling back by the forwards, and we dream hopefully of reproducing such form in club games. The forwards battled strongly and, if several good scoring chances were missed, they combined well and always looked as if a goal was imminent. Conditions could hardly have been better for good hockey, and changing facilities were ample. It is to be hoped that the determined spirit of the Guy's team will long be cherished on subsequent occasions.

Results :—

v. Barclay's Bank	—Won	1—0
v. Old Beccehamians	—Won	1—0
v. Bromley	—Won	1—0
v. Hawks	—Drawn	0—0
Semi-final :		
v. Spencer	—Won	2—1
Final :		
v. Woolwich Polytechnic	—Lost	0—0

(Lost by three penalty corners.)

Hospital Information, etc.

NEW CLINICAL STUDENTS, OCTOBER, 1952.

Name	*School*
Ackery, D. M.	Dauntsey's. St. John's College, Cambridge.
Ashurst, N. K.	Bolton. Downing College, Cambridge.
Batchelor, J. R.	Marlborough. Emanuel College, Cambridge.
Brennan, D. H.	Shrewsbury. Queens' College, Cambridge.
Brock, Miss A. M.	Malvern Girls' College. Somerville College, Oxford
Carmichael, D. S.	Ilford County High. Downing College, Cambridge.
Dowling, St. J.	Stonyhurst. Downing College, Cambridge.
Earnshaw, D. A.	Heath Grammar, Halifax. St. John's College, Cambridge.
Farmer, R. E.	Ellesmere College. Trinity Hall, Cambridge.
Garner, J. F.	Dean Close. Christ's College, Cambridge.
Gilchrist, D. A.	Uppingham. Jesus College, Cambridge.
Jones, W. R. B.	Bromsgrove. Downing College, Cambridge.
Kinsbourne, M.	William Ellis. Christ Church, Oxford.
Manson, J. G.	Uppingham. Clare College, Cambridge.
Marcus, A. M.	Haberdashers Askes, Hampstead. Downing College, Cambridge.
Marsden, J. F.	Stowe. Trinity College, Cambridge.
Palmer, D. J.	Brighton College. Pembroke College, Cambridge.
Price, D. King	Waverley, Nottingham. Fitzwilliam House, Cambridge.
Sears, A. H.	Sherborne. Trinity Hall, Cambridge.
Thomson, C. B.	Cranleigh. St. John's College, Cambridge.
Watson, C. P. K.	Marlborough College. Peterhouse, Cambridge.

APPOINTMENTS VACANT

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited for the post of **Junior Lecturer** in the **Pharmacology Department** from 1st January, 1953. Salary £600 p.a. in the scale £600 × £50 to £750 with superannuation and family allowance.

Forms of application, obtainable from the Dean, Guy's Hospital Medical School, should be lodged in the Medical School Office not later than **20th November, 1952.**

GUY'S HOSPITAL

The Board of Governors of Guy's Hospital invite applications from registered **Dental Practitioners** for the appointment of **Part-time Registrar** in the **Department of Preventive Dentistry** with attendance on 5 sessions per week, to commence duties in December, 1952.

The post will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service.

Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1 to whom applications should be sent not later than **12th November, 1952.**

ROYAL COLLEGE OF SURGEONS OF ENGLAND

Sir William Kelsey Fry has been re-elected Dean of the Faculty of Dental Surgery of the Royal College of Surgeons of England.

PASS LIST

UNIVERSITY OF OXFORD

Long Vacation September, 1952

Forensic Medicine and Public Health

Diana J. Collins

Special and Clinical Pathology

Diana J. Collins

UNIVERSITY OF LONDON

Second Examination for Medical Degrees

September 1952

J. Barrie M. A. C. Lyon R. C. Morgan

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Second Examination

September 1952

H. F. A. Baker
A. J. Bowman
A. D. Forman
K. M. Frew
W. Goriah
A. G. Hitchcock
D. A. Hopkins
E. O. James
J. C. Kingston
D. M. Lipington
S. C. Lubbock
J. Metcalf
A. N. Pollock
Dorothea Street
C. Vowles
C. J. Wilkinson
J. F. H. Young

PAPERS BY GUY'S MEN

Blacker, C. P., J. B. S Haldane on Eugenics. *Eugenics Rev.*, 1952, **44,** 146.

Camps, F. E. Interpretation of Wounds. *Brit. med. J.*, 1952, ii, 770.

Ellis, R. W. B. Punishment and the Maladjusted Child. *Canad. med. Ass. J.*, 1952, **67,** 209.

Horton, R. E. The Diagnosis of Abdominal Emergencies in Children. *Bristol med.-chir. J.*, 1952, **69,** 77.

Kark, Robert M. Nutritional Aspects of Liver Disease in Man. *National Vitamin Foundation, Nutrition Symposium Series, No.* 4, 1952.

Leader, S. A. Laminated Acrylic Dentures. *Brit. dent. J.*, 1952, **93,** 179.

Marshall, P. S. Abnormally Placed Lower Third Molar. *Brit. dent. J.*, 1952, **93,** 187.

Miller, L. F., and Tillman, W. G. Tropical Lichenoid Dermatitis. *Trans. St. John's Hosp. Derm. Soc.*, 1952, No. 31 (July), p. 17.

CHANGES OF ADDRESS

P. Chadwick, M.B., B.S., Public Health Laboratory, City General Hospital, Sheffield, 5.

G. A. Kerr, M.R.C.S., L.R.C.P., L.D.S., R.C.S.Eng., "Bowen's Lodge", Westerham Road, Keston, Kent.

C. H. Kinder, M.A., M.B., B.Ch., F.R.C.S., 2, Green Lane, Chislehurst, Kent.

J. K. Morgan, M.B., M.R.C.P., 37, Wilford Avenue, Brooklands, Sale, Cheshire. Tel. Sale 7144.

A. R. Phillips, Lieut., R.A.M.C., R.M.O., 1st Bn. Irish Guards, B.A.O.R. 4.

Hujohn A. Ripman, F.R.C.S., M.R.C.O.G., Red House, Sproughton, Nr. Ipswich, Suffolk (Ipswich 3325). Consulting Room, 11, Museum Street, Ipswich (Ipswich 55562).

BIRTHS

HUMPHREYS.—On 27th September, 1952, at Crickhowell Hospital, to Norah (née Beckett), wife of R. C. Humphreys, M.B., D.R.C.O.G.—a son (David Selwyn Cenric).

ROBINSON.—On 9th October, 1952, at Warrington General Hospital, to Janet (née Callow), wife of Sqdn. Ldr. K. F. Robinson, M.B., B.Chir.—a daughter.

MARRIAGES

BRUCE—REISSLAND.—On 20th September, 1952, Robert Atholstan Bruce to Joan Gray Reissland, at Seven Kings.

KERR—BALCHIN.—On 13th September, 1952, at Loose, Kent, Geoffrey Alan Kerr, M.R.C.S., L.R.C.P., L.D.S., R.C.S.Eng., to Betty Agnes Balchin, S.R.N.

DEATHS

GIBBINGS.—On 14th September, 1952, at Salisbury, S. Rhodesia, Reginald John Gibbings, L.D.S., R.C.S.Eng., of 23, Montagu Avenue, Salisbury.

GRAHAM-SCOTT.—On 18th September, 1952, at Eastbourne, Thomas G. Graham-Scott, M.R.C.S., L.R.C.P., aged 87 years.

HODGSON.—On 18th September, 1952, Stanley Hodgson, J.P., M.D., M.B., B.S., 33, Crescent Salford, Manchester.

Eds. { E.E.D.T. R.D.W.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1677 1*st November* 1952 *One Shilling*

PASSIM

FALL SOFTLY AUTUMN LEAVES, fall soft, unseen,
Like thoughts which, gently born, flourish and die.
So in your parting, golden now for green,
Shadow for sunlight, with your last good-bye
Cover the broken path.

There shall you dream
Of a free hilltop, of an evening haze
Stretching its silent fingers to redeem
The varied pageantry of summer days—
Or of the sea, of the scent of spray, of the tone
Of the surge of the waves all-conquering.
Again, again, again, come back ! But gone
With the last breath of summer's wandering,
As the warm twilight, overwhelmed in night,
Shrouds the pale sunset.

Then of days to come—
Of winter merriment, of keen delight
In the full-berried holly carried home
To firelit rooms ; of the dark boughs that sway
Guarding some tiny window as they tell
Stories for children new to Christmas day
To light a memory remembered well.

Yet shall you dream that you knew more than these
Outward designs over a fleeting store
Of life—now but the fallen leaves from trees
Covering Time's dim forest with a floor
Softer to tread.

So you, beside the stream
Of the years' whispering flight, silent, shall dream.

We record with great regret the death on October 15th of Mr. P. H. Mitchiner, C.B., C.B.E., T.D., M.S., F.R.C.S., Consulting Surgeon to St. Thomas's Hospital, who has been a representative of the University of London on the Council of Governors of the Medical School at Guy's Hospital since 1950.

Because of an increasing waiting list of male surgical cases requiring admission to hospital, Dorcas ward, hitherto used as a general surgical ward for women, has been turned into a men's ward. This change is likely to be temporary, though the present arrangement may last for some months to come.

Contributors to the *Gazette* are asked to see that all copy reaches the Office *not later than* 10 *a.m.* on the Monday preceding publication, otherwise it will be too late for printing in that issue.

November — **ACADEMIC**

		Exhibition. Surgical Department. "Obstructive Jaundice."
3rd	1.00.	Dr. Rink. Clinical Lecture. "The Open Thorax."
	5.00.	Film. "Fistula-in-Ano and Anal Fissure." Clinical Theatre.
5th	5.00.	Dr. W. H. Merivale. Lecture. "Practical Aspects of Fluid and Electrolyte Replacement Therapy—II."
6th	1.00.	Dr. Hardwick. Clinical Lecture. "Pneumonia."
	5.00.	X-Ray Meeting. Gordon Museum.
7th	1.00.	Dr. Baker. Clinical Lecture. "Confined to Bed."
	2.15.	Clinico-Pathological Meeting. Gordon Museum.
8th	*10.00.*	*Mr. E. S. Lee of the Westminster Hospital. Departmental Round.* Clinical Theatre.
10th	1.00.	Mr. Doherty. Clinical Lecture. "Prostatic Obstruction."
12th	4.45.	Science Club. Professor R. Knox, Dr. R. Goulding, Dr. K. S. MacLean. Symposium. "Isoniazid in Tuberculosis." Staff Common Room. (Tea 4.30 p.m.)
13th	1.00.	Mr. Brain. Clinical Lecture. "Some Non-Malignant Œsophageal Lesions."
	5.00.	X-Ray Meeting. Gordon Museum.
	5.00.	Mr. Murray Falconer. Demonstration of Cases of Neurosurgical Interest. Clinical Theatre.
14th	1.00.	Dr. MacLean. Clinical Lecture. "Antibiotics in Pulmonary Tuberculosis."
	2.15.	Combined Round. Preclinical Classroom.
17th	1.00.	Dr. Forman. Clinical Lecture. ". . . the Wood from the Trees."
18th		Dental Society. Film. "Let's Keep Our Teeth." Dental Theatre. (Preceded by tea in Lower Spit.)

November — **SOCIAL**

14th Guy's Hospital Dental Society Annual Ball. Grosvenor House. 8 p.m.—1 a.m.
21st Guy's Hospital Theatre Club Annual Ball. Bush House. 7.30 p.m.—1 a.m.

NOTICES

CHRISTMAS CARDS

Christmas Cards are on sale in the *Gazette* Office, 6, St. Thomas's Street, S.E.1. Prices : 6*s.* 6*d.* and 3*s.* 6*d.* per dozen, with envelopes (per post 6*d.* extra).

As supplies are limited, early purchase is advised.

A COCKTAIL PARTY AND DINNER

for Guy's men and their wives is being held at the
COUNTY HOTEL, TAUNTON
at 7 p.m. on
FRIDAY, 5TH DECEMBER

All those who wish to attend should write to Dr. A. M. McCall, M.R.C.S., L.R.C.P., D.P.H., Orchard House, Crewkerne, Somerset. Tel. 471.

Angina Pectoris and Cardiac Infarction

A Clinical Lecture delivered at Guy's Hospital Medical School on 26th September, 1952

By SIR JOHN CONYBEARE, K.B.E., M.C., D.M., F.R.C.P.

LADIES AND GENTLEMEN,—I do not propose today to attempt any discussion of the pathology, electrocardiographic changes or even the differential diagnosis of angina or cardiac infarction. I shall begin by calling attention to the fact that only about 25 years ago cardiac infarction, perhaps more often known as coronary thrombosis or coronary occlusion, was an almost unrecognized condition. Angina pectoris was known but regarded as relatively uncommon.

When I was a student and house officer I sometimes kept notes of cases which I regarded as of special interest. May I be allowed to read the account of a patient which I wrote in 1917 :—

" A man aged 55 was admitted into Addison Ward under Dr. Lauriston Shaw in August, 1917. The patient was apparently well until the day of admission, when about 1.0 a.m. he woke up with severe pain in the lower part of the thorax, mainly over the præcordia. He attempted to walk up to the Hospital but collapsed in the road and was brought up in an ambulance.

" When seen in the Surgery he looked extremely distressed and was groaning with pain which he localised in the lower part of the chest. His pulse was about 100 and his temperature subnormal. The heart sounds and cardiac dullness were normal. The abdomen moved well and showed no tenderness or rigidity. No history of previous similar attacks could be obtained. A provisional diagnosis of angina pectoris was made and the patient was admitted.

" In Addison he was given amyl nitrite without much obvious benefit and was watched. During the night the patient's pulse rate fell steadily and had dropped to about 60 by 9.0 a.m. ; from that time it showed a tendency to rise. The patient slept very little and the pain in the chest continued. In the early morning he vomited a quantity of dark material, which on examination proved to be ferric chloride and a certain amount of altered blood. At about mid-day the patient was seen by Dr. Lauriston Shaw and Sir William Hale-White, who made no diagnosis. They suggested, however, that the patient might be suffering from a gastric ulcer which had perforated into the lesser sac of the peritoneum. Alternative diagnoses were diaphragmatic pleurisy, gall stones, and angina.

" A few hours later the patient's pulse suddenly went up to 140 and he completely collapsed and died within 15 minutes."

Sir William Hale-White and Dr. Lauriston Shaw were both physicians of the highest eminence and experience, yet they were clearly in doubt about the diagnosis of this patient. It is difficult to believe that at the present time a firm diagnosis of cardiac infarction would not have been made on the history alone by any student who had done his first three months as a medical ward clerk.

At autopsy the pericardium was filled with blood and there was a rupture through the muscle of the anterior wall of the left ventricle about half an inch in length. The heart muscle microscopically appeared soft and fatty. The coronary arteries were markedly thickened, but the aorta and valves were normal. The post mortem diagnosis was fatty heart and rupture of heart.

The story of this case shows clearly that in 1917 the clinical features associated with cardiac infarction were unrecognized even by physicians of the highest eminence.

Dr. Hilton Fagge, in his classic textbook published in 1886, devoted many pages to angina pectoris. From his description of cases it is clear that some refer to cardiac infarction rather than what we now mean by the term angina. Dr. Fagge makes the somewhat surprising remark : " Angina pectoris is rare in its well marked and typical form." He also quotes the case of John Hunter who suffered from angina for 20 years and ultimately died within the walls of

St. George's Hospital in consequence of a dispute at a meeting there, with regard to which he had previously expressed a foreboding that the result would be fatal to him.

Incidentally if any of you are fortunate enough to have an opportunity of obtaining a copy of *The Principles and Practice of Medicine* by Hilton Fagge, do not miss it. The two large volumes contain most graphic and arresting descriptions of disease mainly based on Fagge's personal experience. It is remarkable that though Fagge describes cases which were clearly cardiac infarction, the post-mortem findings were not noted and this is particularly strange as it was in an era when great attention was paid to morbid anatomy at Guy's.

Coronary thrombosis as a clinical entity was first recognized in America. I well remember in 1924 at the Johns Hopkins Hospital being taken to see a patient suffering from what would have earlier been termed *status anginosus*. The resident physician who was my mentor emphasised the importance in the diagnosis of pyrexia, leucocytosis and a pericardial rub. So much interest was aroused by this case and others in the Johns Hopkins Hospital that Dr. J. W. McNee (now Professor Sir J. W. McNee) wrote up two cases of coronary thrombosis in the *Quarterly Journal of Medicine* in 1925. Since then the disease never looked back in the United Kingdom or elsewhere and claims more and more victims every year.

Has there been a real increase in coronary disease ? Evidently the older physicians, such as Hilton Fagge, considered angina a relatively rare disease. Sir William Osler had never seen a case when he was made a Fellow of the College of Physicians in 1883, at the age of thirty-three. In 1910 in his Lumleian Lectures at the Royal College of Physicians, speaking of angina, Osler said : " It is a disease for a senior to discuss, since juniors see it but rarely ; indeed I had reached the Fellowship before I saw a case in hospital or private practice." Note that Osler makes what seems today an almost incredible statement about angina pectoris, in which must at that time be included cardiac infarction.

Do statistics support the conclusion that there has been an increase in the incidence of coronary disease ? The Registrar General's report shows that the number of deaths diagnosed as due to disease of the coronary arteries and angina has increased in males by nearly 400 per cent. between 1935 and 1949. In females the increase has been nearly proportionate. This is well shown in Figure I which is based on the total deaths from coronary disease in the United Kingdom.

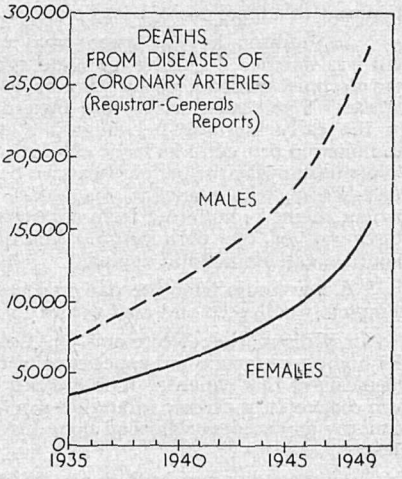


Figure I

There are, however, many obvious reasons why the number of deaths from coronary disease should have increased. In the first place there has been, in spite of the war, an increase in the total population of the country. More important, however, is the fact that the population of Great Britain has today far more persons of middle age and over than in the past. As coronary disease is practically confined to those over 45 it would be surprising if there was not a rising incidence of the disease. In Table I is shown the age groups of the population in 1921 and 1945. It will be observed that in 24 years persons above 45 years of age have increased from 24 per cent. to 33 per cent. This aging trend of the population is still continuing and one of its effects must be to increase the incidence of diseases such as angina and cardiac infarction.

Table I

AGE GROUPS OF POPULATION
(in percentages)

	0–14	15–44	45–64	65+
1921 ..	29	47	18	6
1945 ..	21	46	23	10

More important, however, than either of the factors referred to above are changing fashions in diagnosis. As I have already pointed out cardiac infarction was hardly recognised until 1925 and clearly would not have been given as a cause of death.

Most of those who die of coronary disease suffer from heart failure in one form or another and there can be no doubt that a very high proportion of deaths, which in the past were certified as due to fatty degeneration of the heart, myocarditis or myocardial degeneration, were really the result of coronary disease or cardiac infarction.

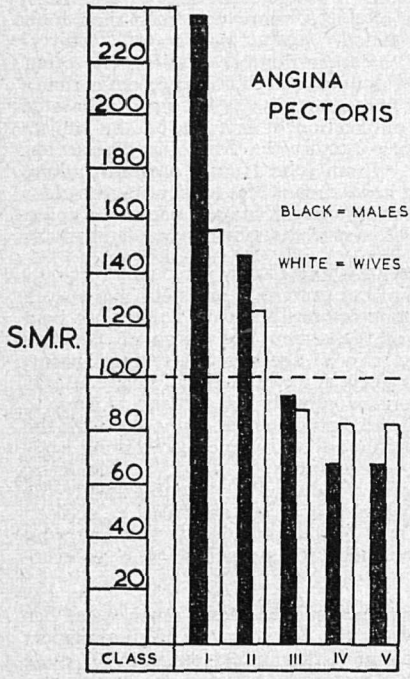


Figure II

Standard mortality ratio from angina pectoris for men divided according to their social class as in the Registrar General's reports, and for wives.

Although we may make every allowance for increase in population, aging of the inhabitants of Great Britain and above all for changing fashions in diagnosis, nevertheless it is difficult to believe that disease of the coronary arteries, including both angina and cardiac infarction, has not become far more frequent in the last 30 years.

The late Professor Ryle published in 1949 a most interesting paper from the Institute of Social Medicine at Oxford on *The Natural History of Coronary Disease.* Professor Ryle emphasized the frequency of coronary disease among professional workers and its relative rarity among unskilled labourers. This is well shown in Figure II which is taken from Professor Ryle's paper.

The Registrar General in his annual report divides the population into five special classes. Class I comprises professional workers, who work with their heads rather than their hands. Class III represents skilled artisans and Class V unskilled workers. Classes II and IV are more or less intermediate grades. It is clear from Figure II that the incidence of angina is far higher among the professional class than among those who are primarily manual workers.

In Table II occupations are studied separately as regards standardized mortality ratios from coronary disease. The somewhat alarming fact emerges that medical men have an incidence far higher than that of any other profession and immeasurably higher than that of heavy manual workers.

Table II

STANDARDIZED MORTALITY RATIOS—CORONARY DISEASE

Male Occupations

Physicians and Surgeons ..	368
Business Men	235
Anglican Clergy	218
Coal Miners	40
Agricultural Workers	32

All Males = 100

These facts suggest that strain, stress of work and the increased " tempo " of modern life are important predisposing factors. This is no new idea. Sir William Osler, in his Lumleian Lectures at the Royal College of Physicians in 1910, stressed this aspect of angina. I quote from his lecture :

" A point (he said) that stands out prominently in my experience is the frequency of the disease in our profession. For the same reason, doubtless, that Sydenham gives for the incidence of gout, ' more wise men than fools are afflicted ', angina may almost be called ' *morbus medicorum* '. Thirty-three of my cases were in physicians, a larger number than all the other professions put together. Curtin in his study of sixty fatal cases notes that a fourth were in physicians. This large percentage in my list may in part be attributed to the circumstance of the publication of lectures on the subject in 1897. But the frequency with which doctors die from the disease has become the subject of common remark. From John Hunter onwards, a long list of most distinguished men have been its victims. Not to mention the older physicians, among our contemporaries was Nothnagel, himself one of the ablest students of the disease, whose last act in life was to describe his own fatal attack.

" In a group of twenty men, every one of whom I knew personally, the outstanding feature was the incessant treadmill of practice ; and yet if hard work —that ' badge of all our tribe '—was alone responsible, would there not be a great many more cases ? Every one of these men had an added factor—worry ; in not a single case under fifty years of age was this feature absent, except in Dr. G., who had aortic insufficiency, and who had had severe attacks of angina years before, probably in connexion with his aortitis. Listen to some of the comments I jotted down, of the circumstances connected with the onset of attacks : ' A man of great mental and bodily energy, working early and late in a practice, involved in speculations in land ' ; ' domestic infelicities ' ; ' worries in the Faculty of Medicine ' ; ' troubles with the trustees of his institution ' ; ' lawsuits ' ; ' domestic worries ' ; and so through the list. At least six or seven men of the sixth decade were carrying loads light enough for the fifth, but too much for a machine with an ever-lessening reserve."

Since 1910, when Osler wrote the passages quoted above, much water has flowed under the bridges—two world wars, the development of air transport and almost of motor transport, the telephone (a rare implement in 1910), quite apart from a social revolution which has materially affected the wealth and ease of the Registrar General's upper social class. If stress is one of the factors which predispose to coronary disease the increased " tempo " of life today might reasonably be thought to have raised the incidence of angina and cardiac infarction in the professional classes.

There are, of course, other possible factors. The consumption of tobacco has increased enormously concurrently with the increase in coronary disease. There is, however, no real evidence that tobacco or alcohol necessarily play any part in the production of coronary sclerosis. We must bear in mind, however, that excesses in smoking and drinking are often only the outward and

visible signs of stress and anxiety. Even if it were proved that heavy smokers showed over-average mortality from coronary disease it would not follow that tobacco was a causal factor.

In the past it was suggested that infection might play a part in the production of atheroma, hypertension and coronary disease. Few would subscribe to such a view today and unfortunate sufferers are no longer subjected to a search for focal sepsis.

The importance of heredity as a factor in the incidence of coronary disease is well recognized. This, of course, is true not only of angina and coronary occlusion but of cardiovascular disease in its widest aspects, covering essential hypertension and all its sequelæ, such as cerebral vascular disease. Deterioration of the arteries, including the coronary arteries, often seems to " run in families ", leading to an abnormal proportion of deaths, especially among the males, from cardiac infarction, cerebral hæmorrhage and thrombosis.

A classic example of a family history of cardiac infarction is that of Doctor Thomas Arnold, the famous headmaster of Rugby School, who died suddenly of what was clearly cardiac infarction at the age of 47. His father had died suddenly at the age of 53 from angina pectoris and Dr. Arnold's son, Matthew Arnold, also died at the age of 66 after suffering from angina for many years.

Lytton Strachey in *Eminent Victorians* gives a vivid description of Dr. Arnold's last hours. He awoke with a sharp pain in his chest in the early hours of the morning and a physician was summoned. The pain persisted and when the physician arrived, he perceived at once the gravity of the case and made a diagnosis of angina pectoris. Though Dr. Arnold had not apparently had any previous attacks of angina he was haunted by forebodings of an early death.

Is there anything we can do to stem the ever increasing incidence of coronary disease and, for that matter, of cardiovascular degenerative diseases ? There is no prospect of any spectacular cure. Sympathectomy or hypotensive drugs may temporarily allay symptoms, but there is little hope of any drug which will have an effect on the arterial system in any way comparable to that of antibiotics on infections. By the time symptoms arise there must be irreversible changes not only in the coronary vessels but probably in many other parts of the arterial system.

A proportion of sufferers from arterial disease, coronary or otherwise, are unduly obese. Undoubtedly if obesity could be prevented there might be some prospect of a decrease in the incidence of angina and cardiac infarction in late middle life. Better still, if a return to the more leisurely and placid life of the Victorians were feasible we might expect to see a decrease in arterial disease. Such a prospect is, however, almost inconceivable in the social and international set-up of the present day. It would seem that the allurements of life today, rapid travel, new discoveries and equal opportunities for all, must carry with them a tendency to wear out the intricate structure of our circulatory apparatus prematurely.

TOYS FOR THE CHILDREN'S WARD

There is a great need for toy prams, carts and tricycles in the Children's Ward ; in fact anything on wheels which can be pushed or ridden *by children of* 2 *or* 3 *years of age.* A dolls' house, too, would be most welcome.

If any of our readers can offer some of these items the Secretary of the Guild of Ex-Patients would be most grateful to receive them at No. 6, St. Thomas's Street, S.E.1.

The Dental Society

Presidential Address delivered on 17th October, 1952

By W. E. HERBERT, F.D.S., M.R.C.S., L.R.C.P.

LADIES AND GENTLEMEN,—I very much appreciate the honour you have done me in asking me, for a second time, to be President of this Society and I shall look forward to as successful a session as you had last year under the Presidency of Mr. Vale. I may say that the feeling of pleasure which I naturally felt at being thus honoured was quickly followed by the sobering thought that I should be expected to address you at this, the first meeting.

The Honorary Secretary has reminded me that it was in 1937 that I was last President. There have been many changes since then and if our hopes for a new hospital building, including the Dental School, after the war have not yet been realized we have, largely as a result of funds derived from the University Grants Committee, extended and re-equipped and thus greatly improved the facilities of our present building, and we have hope of further extensions to come.

Throughout this time the Dental Society has continued to flourish and increasing numbers of Guy's men, and now women, come back annually to the Clinical Meeting and Dinner of the Society on the first Saturday in March to meet old friends, revisit their hospital and see what improvements we have been able to make. And so when you come to Guy's you become part of an institution which not only has many great traditions but is noted for the *esprit de corps* which exists amongst its students, and amongst the many qualified Guy's men who are in practice all over the world.

You have also joined the hospital which was the first teaching hospital to take an interest in Dental Education, and as early as 1799 appointed a dental surgeon, namely Joseph Fox, to its staff. Guy's has always had a reputation for the high standard it has maintained in the treatment of its patients during the 227 years it has been in existence. The future reputation of the Hospital in this and other respects lies in the hands of the present generation of students. This is particularly true in the case of the dental department because whilst members of the staff may demonstrate and plan treatment, sometimes criticise a little, often I hope assist, in the main the routine treatment is carried out by students. You will usually have the privilege here of working for a very satisfactory type of patient. Some have been referred because of the reputation which Guy's enjoys, others because either they or their friends have received good treatment in the department at the hands of your predecessors.

When you come to Guy's you also become students in a University. We have always found it difficult to regard ourselves as part of a University quite in the same way as medical and dental students do in the provincial Universities where there is usually only one school, and the students are often living with students of other faculties. London University has twelve medical and five dental undergraduate schools each closely linked with one of the teaching hospitals. Nevertheless medicine and dentistry have cause to be very grateful for the help they have received from the University in recent years, and increasing numbers of students now take the B.D.S. degree, and the first examination for the newly established M.D.S. degree is to be held in November.

The Profession of Dentistry

A profession is described in the dictionary as a vocation, occupation or calling such as implies a measure of learning. You may have decided to take up dentistry for a variety of reasons, but I hope you will come to regard it as a vocation or calling and find satisfaction in it. It is a profession which has many interests.

In the first place it is concerned with people rather than things and you will have the interest of meeting in your practices patients of very different types and from all walks of life. Patients are persons like ourselves who come to us for advice and help and we are in the position of rendering them a service for

which many will be grateful. Our first consideration must be for the welfare of the patient as an individual, bearing in mind his own particular circumstances. Of secondary importance to this is the planning of some particular technical procedure which we deem to be desirable. In other words we must learn always to look beyond the tooth to the mouth as a whole and to the patient. In recent years we have heard so often terms such as " clinical material " and " hospitalisation " that it seems desirable to remind ourselves, or perhaps others, that we treat people as distinct from diseases. Whilst we must welcome dental treatment being made available to all, we can readily understand the difficulty of maintaining a high standard of individual attention in the face of a vastly increased demand. Our chief stimulus and reward in practice will come from patients who appreciate what we have done for them, but many will often present with conditions which are of interest from a scientific point of view.

Dentistry is a growing profession and has advanced in many respects in recent years. It may perhaps be considered to have come of age since the Dentists' Bill, at present before Parliament, provides for government by a new General Dental Council instead of the General Medical Council as heretofore. Nevertheless the fundamental problems of dentistry still lie within the field of research workers in the basic sciences.

The Americans have always gone in for much specialisation and the same tendency is apparent here, and is likely to continue as knowledge of the different aspects of our work increases and new techniques are introduced. We have Exodontia, Endodontia, Periodontia, Pædodontia, Prosthetics, Orthodontics, Conservative, Preventive and Restorative Dentistry, Oral Surgery and Stomatology. An increase in fundamental knowledge of dental disease and means of prevention may perhaps one day reduce this formidable list, but in the meantime we must regard them, important as they are, in their true perspective as aspects of Dentistry which is itself a branch of Medicine.

In the dental curriculum it is necessary to subdivide the course so as to deal with one or more aspect at a time, but as you become more senior you will be in a position to bear them all in mind as you examine the mouth as a whole and plan your treatment. This should be our main purpose in the first appointment with a new patient. As far as possible we should explain what we are proposing to do, and what the patient should do for himself in order to maintain oral hygiene and reduce the risk of further trouble.

One of the satisfactions of dentistry will be the carrying out of good technical work sometimes under difficult circumstances. A dental surgeon is not likely to be successful unless he is capable of attaining a fairly high degree of skill with his hands. The word surgeon itself comes from the Greek words *cheir* (hand) and *ergon* (work). Nevertheless technical skill must always be subservient to judgment in diagnosis, prognosis and treatment planning, so that in the treatment which is undertaken due consideration is given to the condition of the mouth as a whole and the circumstances of the individual patient. Clinical judgment is perhaps more difficult to acquire than technical skill, but is developed gradually as we follow the well known routine of clinical examination.

A concise history of the symptoms complained of by the patient is first obtained. This is followed by a careful examination including inspection, palpation, etc., where applicable, together with other tests such as transillumination and vitality tests. Special investigations such as radiography and laboratory tests are left until last. Radiographs are so valuable that they are almost universally used when teeth are being investigated, but without a proper clinical examination they may be very misleading.

The second part of the definition of a profession, namely " a measure of learning ", leads me to say something about the dental curriculum of which we shall hear more later in the session.

The Dental Curriculum

Since the passing of the Dentists' Act in 1878 the General Medical Council has had the responsibility of keeping a register of dental practitioners and ensuring a minimum standard of training and proficiency for those seeking registration. For this purpose it has from time to time issued Recommendations concerning

the dental curriculum, and appointed visitors to report on the Dental Examinations conducted by the licensing bodies. If the Dentists' Bill at present before Parliament is passed, these duties will become the responsibility of the new General Dental Council. Thus the Recommendations recently published, replacing those which have been in force with little alteration for the past 20 years, are likely to be the last to be produced by the General Medical Council. They have been prepared on the advice of a Dental Curriculum Committee which has considered the matter over the last four years and has had the benefit of the opinions both of the dental schools and the licensing bodies.

The new Recommendations suggest little change in the section dealing with general education and pre-dental studies, viz., Chemistry, Physics and Biology. These subjects are a necessary preliminary to those which come later and provide basic knowledge which will help us to appreciate the significance of research and its application to dental practice. The rest of the course is divided into "a period of preclinical studies" and "a period of clinical studies". The first of these periods extends over three academic terms and is devoted to the study of Anatomy and Physiology. The specifically dental aspects of these subjects may be studied during this time or deferred to the next six months.

A sound knowledge of the gross and minute structure of organs and of their function in health is essential if we are to understand the changes produced in them by accident or disease. Dental disease does not differ from disease in other parts of the body but in view of the specialised nature of dental tissues the possibility of repair is less. Thus when highly calcified dental tissues are damaged or destroyed they often have to be restored in whole or in part by some foreign substance. Hence a knowledge of the properties of dental materials is essential and skill in handling them must be acquired.

The Recommendations for the period of clinical studies show the greatest change because here many of the different aspects of dentistry which I have referred to previously are now individually mentioned, and have specific requirements allotted to them. A minimum of two and a half years' hospital practice is required within the period of clinical studies and since the final examination cannot be taken until after four years of professional study the total length of the course remains unchanged. Mechanics and Prosthetics are now included in the period of clinical studies and it would appear that the requirements for Mechanics, viz., 800 hours, have been greatly reduced. It is doubtful, however, whether this is really so since the old requirement of 2000 hours has been interpreted for years by most licensing bodies as including dental Prosthetics for which no other provision was made.

The new Recommendations will, however, permit some variation in the order and manner in which the different aspects of dentistry are studied, and there is little doubt that they will encourage the dental schools and licensing bodies to continue their efforts to improve the course of study in dentistry. However, in spite of modifications I do not doubt that we shall still feel that if some particular aspect could have been placed later in the course it would have been studied with greater benefit. In any case the undergraduate course should only be regarded as a basis for further experience in practice and we should strive to prepare ourselves for practice rather than merely for examinations, however important they may be. Most people pass the final at the first attempt. Mr. Goodliffe tells me that of the 328 dental students who have qualified from Guy's during the past five years, only 20 have failed the final examination more than once.

On qualification I would urge you to join professional associations such as the British Dental Association, and take an interest in them so that you may share in the experience of colleagues. Those of you who joined the International Dental Congress last July will, I am sure, never regret it.

Finally, two further pieces of advice to those about to qualify. Join the Dentists' Provident Society because it is a good investment as well as a sickness insurance, and join a Protection Society in case all your patients are not grateful. In conclusion, I would wish you all a successful career in the profession you have chosen, and the Society a useful and enjoyable session.

CORRESPONDENCE

Dr. Mac Keith's letter on Pertussis—the Illustrations

SIR,—When the four pictures designed to teach infectious disease were previously published I protested against the one in which Death or the Devil is depicted as a human skeleton clothed in a monkish cloak strangling the infant of a family of four and striking terror into a toddler by clasping her frock while the two elder brothers show naked fear. I must protest again.

Teaching by terror is always wrong whether it be of a student, a mother or of an individual patient. It is our business to allay fear, and to do so constitutes one of the most potent therapeutic measures at our disposal. We cannot learn it from a teacher or a fellow-student. Each one of us has to teach himself by his contacts with his patients and those standing around them. That is why a man of experience, who has not been able to keep himself in touch with modern advances, may be more efficient as a healer of the sick than a younger man saturated with all the latest knowledge of the laboratories and the books.

It is true that there are things in medicine that are terrible and diphtheria is one of them ; if anyone wants to know how terrible let him read the account of it during the '70s in Paris in Axel Munthe's great book. That, thank God, has gone, but in isolated cases it is still terrible, and I would not ask any member of our profession to shun his duty of telling a patient or a parent that it is so. But that duty should not be carried out by thrusting another terror into the individual's mind. When we cannot allay fear by assuring the patient that the condition is not so serious as he thought it to be, it is our function to replace this by courage ; and you cannot build up courage by striking fear into anyone. In grave disease the final factor in recovery or death may be whether the patient, or a mother standing by, faces it with fear or with courage.

I would suggest that whoever owns the copyright of this picture should destroy it and any plate in the possession of the *Gazette* or other Journal, in order to prevent any other ill-advised Editor filling up a bit of vacant space by publishing it yet again.

Yours, etc.,

T. B. LAYTON.

SIR,—Those who live and work " way back ", beyond the reach of the greater benefits of modern science, are often indebted to the *Gazette* for glimpses of the splendours of metropolitan medicine. I write, therefore, to express my gratitude to you and to Miss Treadgold for the eloquent illustrations of the whooping cough spasm attached to Dr. Mac Keith's letter in your issue of October 18th.

Yours, etc.,

R. A. RATCLIFF.

Western Elms Lodge,
Reading.

Hormones in the Treatment of Cancer

SIR,—Dr. Bishop, in his lecture *Hormones in the Treatment of Cancer*, says that in the normal man " the intact fibrous capsule of the prostate must serve as a barrier to prevent acid phosphatase from reaching the general circulation."

On this he bases an elaborate argument. Yet it is surely a very odd physiological idea. Is not the prostatic secretion delivered into the posterior

urethra during coitus ? If there be an internal secretion of the gland, why should it not be delivered, by means of the prostatic veins, into the general circulation ? Can any other example be given of an internal secretion delivered by osmosis into the tissue spaces ?

Yours, etc.,

W. PATRICK ROE.

Barkwith House,
East Barkwith, Lincoln.

Dr. Bishop writes :—

I should like to thank Dr. Roe for pointing out to me that I have represented the mechanism of increased acid serum phosphatase levels in cases of carcinoma of the prostate which have extended beyond the gland, in a manner which is grossly over-simplified.

The fact remains, however, that the acid serum phosphatase level does rise considerably where there are bony metastases or where the malignant growth has extended beyond the confines of the gland. It is clearly wrong to explain this by speaking of the fibrous capsule. I imagine that what happens is that the enzyme is elaborated within the prostatic cells and is usually confined mainly in the cells by the cell membranes, though a small but constant amount escapes into the blood. Increased activity of the cells such as would occur when malignant changes take place would be expected to raise the acid phosphatase content. Some of this undoubtedly might enter the tissue fluids and blood stream.

Once the malignant process has increased to such an extent that the cancerous tissue is no longer confined by the gland itself but is spread and even metastasised to bones one might then expect a considerable increase in the amount of enzyme-producing prostatic cells. This in its turn would lead to an increase of the enzyme in the blood stream.

PETER BISHOP.

The Alarming Sunbeam

SIR,—Dr. Vertue's article in the last number of the *Gazette* brings to my mind a case of the nature of heat stroke which was (on my sounding consultative opinion before his resuming work) not agreed to and the patient was told (*ipse dixit*) that " heat stroke does not occur in England." This I should refute, although it is admittedly rare, yet if I had called the condition " sun trauma " that would not have fitted the symptoms and probably the case was no more than we have experienced ourselves—namely a mild degree of heat exhaustion caused by perspiration in extremely hot weather.

Hence in this type of case the question of alcohol arises as a very good corrective, being a circulatory stimulant, and radiating off the excess of heat. Now, as I suggested to a physiologist, your favourite dictum from laboratory experiments is that alcohol makes you lose more heat than you make and therefore is not to be compared with nourishing foods for calories, but you admit it is a circulatory stimulant. Well, then, what an ideal drink for a hot summer's day ! Hence the value of a small tot in the tropics (true, it may be said coffee will do the same and that is why Easterns are so partial to it) and in heat exhaustion and hyperpyrexia it is a good adjunct to treatment, as is well known by those who have had tropical medical experience.

This leads me up to Dr. Vertue's remark on soluble aspirin, for this is specially suggested for sun glare stroke. As the rays pass through the optic tract, as suggested, I consider that shock is thereby induced to the central ganglionic circulation (circle of Willis) which supplies principally the optic thalamus (the assembling point of all sensory stimulants passing on to the cortex) and other basal ganglia. It thus breaks down the blood brain barrier allowing uric acid or other congener to circulate in the sacrosanct area—hence the aggravation of epilepsy he describes—and hence the remedy of soluble aspirin he mentions ; for with the exception of photophobia (and the sun glare

accounts for that) the other symptoms are identical with migraine—just allergy again. Dr. Alexander Haig, in his book " Uric Acid ", had a word for it, and how fond he was of always exhibiting salicylates in small doses for any allergic condition! It helps the urea threshold in the kidneys. I find small doses combined with bromide and gentian are very useful in cerebral B.P. with either theominal or aminophylline, and have found these useful in reducing pressure in the cerebral circulation before operation is to be performed on the eyes. It seems to me that Dr. Vertue's delineating between these three conditions of sun glare, hyperpyrexia and heat exhaustion has shown, indirectly in my opinion, how cerebral blood pressure might be distinguished from general blood pressure in its origin. Probably the damage done temporarily by sun glare on the glial membrane is similar to that which happens permanently when in malignant hypertension the prolonged weakening of general resistance causes the blood brain barrier to be at last similarly affected.

To conclude, I am interested in the clear exposition of Dr. Vertue's article and in the differences definitely stated and treatment rationally laid down.

Yours, etc.,

44, Trinity Church Square,
London, S.E.1.

R. LARKIN.

Ward Clerks' Notes

SIR,—I think Passim's violent attack on typewritten ward clerks' notes is quite unjustified. These notes are charged with being impersonal but, surely, day by day records, subjective and objective as they must be, can only have been obtained by discussion and questioning of the most personal kind, as well as by personal observation at the bedside.

Notes which never leave the busy atmosphere of the ward, however orderly may be the arrangement and however skilled a scribe may be the writer, are unlikely to make as comprehensive a contribution to the documentation of a patient's stay in hospital as the report composed *from notes made at the bedside*, but prepared in the calm of a study and duly annotated and arranged so that they may present, as clearly and concisely as possible, a true personal record. Passim's objection to their being typewritten is surely, in these days, merely idiosyncrasy.

May I make one further point in favour of these maligned typewritten notes ? I would suggest that the ward clerk, in applying himself or herself, to the case and its problems outside as well as inside the ward, will be stimulated to further thought, perhaps to reading, and certainly to fix the case more firmly in the memory so that it may be available for help in future diagnoses.

Yours, etc.,

WARD CLERK.

Guy's Hospital Amateur Boxing Club

SIR,—After reading through the last issue of the *Gazette*, it occurs to me that it is about time someone informed unenlightened Guy's men, both past and present, that there is still a very active boxing club at Guy's. I read about the wonderful spirit in the cricket club whilst on tour, and then read on to see that no exception is made to any other club when advice is handed out as to how Guy's could attain their rightful place in the sporting world. Well, as far as the Guy's Hospital Amateur Boxing Club is concerned it has been in its rightful place ever since the war, viz., on the top.

It appears to me that the club has had very little in the way of publicity, recognition and encouragement : yet by sheer hard training, a will to win, and, thank God, " guts ", we have managed to win the Inter-Hospitals' Cup every year without fail since the war. Furthermore, because of our prestige throughout the British Isles every university, naval, military and air force college has asked us for fixtures hoping to enhance its prestige by beating us. Unfor-

tunately, owing to the poverty of the club, and the necessity for its members to pass examinations these days, we are only permitted to entertain a very few.

This coming season we are having four home fixtures in the Pavy Gymnasium, and we cordially invite anyone wishing to see some real Guy's spirit in action. I do not wish to offend anyone of the Antivivisection Society and their kin, but there is still a sport at which Guy's lead the field, although I believe the Hockey Club are not far behind, so please don't forget the boxers.

Yours, etc.,

WILFRID H. WATSON,

Capt., G.H.A.B.C.

(*The* GAZETTE *is always willing to publish accounts of Guy's sporting events, but as the Editor has no team of reporters at his disposal, he relies upon the officials of the clubs themselves to send information about their activities.*)

Porters' Uniforms

SIR,—It is with a feeling of joy that we behold the portering staff in their resplendent new-style uniforms, a uniform which without doubt enhances the bearing of the men and which is certainly a credit to Guy's.

It is, however, with a feeling of deep and gloomy gloom that we contemplate our own " misfit " overalls. It cannot be claimed that the present style and cut enhances our appearance ; they only cause us to creep shamefacedly around looking—and feeling—like inferior beings from another world; certainly not to be regarded as a credit to Guy's.

We look forward to the day when we too will receive an equally smart and distinctive uniform.

Yours, etc.,

DISHEARTENED GREENCOATS.

A NEW UNIFORM FOR GUY'S PORTERS

Porters at the Hospital are normally issued with fresh uniforms every two years. At a meeting of the Staff Consultative Committee (where representatives of all grades of the staff meet representatives of the Governing body) towards the end of the current biennial period, the question of a new *design* of uniform was raised. Mr. J. Southcombe, the Head Porter at Guy's, was asked to make suggestions as to the new style, and in consultation with his colleagues on the staff he submitted to the Superintendent the new design which has lately been approved and generally issued to the porters.

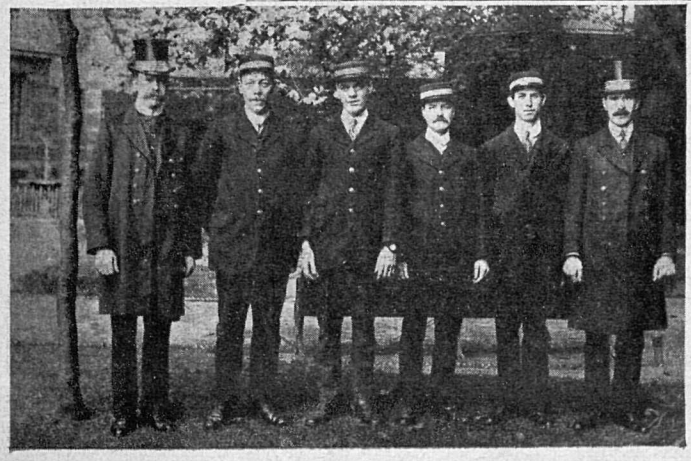
The main differences are that the present uniform is cut on more military lines in the form of a patrol jacket and trousers and has yellow piping instead of the former red—the brass buttons and cap badge remain unaltered. The letters " G.H." are prominently displayed on the lapels of the jacket. Shirts and ties are not at present issued by the Hospital.

On the opposite page there are pictures showing representative groups of porters during the past 40 years. It is of interest to note that the senior serving porter on the staff, Mr. H. Mankelow, appears in all three. He stands second from the right (as you look at the picture) in the 1912 group, second from the right in the back row in the 1924 group, and immediately behind the Head Porter in the 1952 group. He is still actively employed in the York Clinic. Mr. R. Shipcott, who has returned to work in the Medical School since his retirement, stands on the right of the 1912 group. The late Mr. J. H. Whitbread is seen in his capacity as Head Porter standing on the left of the group of 1912, and is seated second from the right in that of 1924. He was succeeded 8 years ago by Mr. John Southcombe who sits in the centre of this year's group. This shows some of the 40 porters who serve under him at the present time dressed in the new style of uniform. Mr. Southcombe has served on the hospital staff for 23 years.

Porters at Guy's October 1952, The New Uniform.

(Photograph by courtesy of the Daily Express)

1924.



1912.

REVIEW

Lung Abscess. By R. C. BROCK. Blackwell Scientific Press. *Price* 35*s.*

This excellent book is more than an account of lung abscess ; it is a clear description of the bronchial and segmental anatomy of the lung in its relation to the general process of inflammation. Abscess of the lung is stripped of that aura of mystery which the chest wall and traditional speculation have given it, and is brought into line with inflammation and abscess formation anywhere in the body. At the same time the effects on this process of the peculiar anatomy and physiology of the lungs, and their relation to the upper respiratory tract are ably stated, and everywhere there is a clear distinction between fact and conjecture. The arrangement of the work is rational and orderly, starting with a chapter on anatomy and then a chapter on the general pathology of lung abscess. The subject is then divided into anaerobic, aerobic, staphylococcal and Friedlander abscesses which are described and discussed in detail, and these chapters are followed by others on ætiology, lung abscess and bronchial carcinoma and the treatment of lung abscess. Each chapter is complete in itself so that the reader who wishes to learn about staphylococcal abscess, for example, can do so without reading the whole book. This arrangement involves some repetition, but it is never tedious and the book can be read through with enjoyment. The secret of this seems to be that the work is more than a complete description of an important part of lung pathology ; every page is an expression of Mr. Brock's wide experience, clear thinking and urgent personality. Even if the proper use of antibiotics were to make lung abscess into a rare and unimportant disease, this book would remain historically important.

The vast bibliography on lung abscess has been carefully studied and assimilated, but only the best of it has been used, so that the reader is not burdened with untenable views merely because they have been committed to print. Another pleasing feature is that the author limits himself to the subject under discussion. It would have been easy to digress into cerebral abscess, pyopneumothorax and many other facets of medicine, but this has been resisted. In this way the reader's attention is maintained throughout. The illustrations and radiographs are excellent and in close relation to their points of reference in the text. What is there to criticise ? The production of the book could hardly be improved ; it is good to have and to hold. The only typographical error that could be found was on page 64, line 21, where a comma has slipped up too high. Incidentally, in this line, the description of a lung abscess as "pure and simple" might cause the humourist to raise one eyebrow very unobtrusively.

The style is the man, and this is one of the most important attributes of the book ; the constant use of the first person, the almost religious exhortation of the reader to avoid the mistakes and inaccuracies that abound both in practice and in the literature, and the whole-hearted acknowledgment of that which is sound in the work of others are so characteristic of the author that the book could not have been produced by anyone else.

It might be said that a little more stress could have been placed on the general inflammation of the bronchial tree that so often accompanies a lung abscess, the effect of this on symptoms and its importance in relation to antibiotic therapy. This point does receive adequate treatment in the chapter on staphylococcal abscess where its action in producing distension cavities is so obvious on the radiograph. Intoxication and drugs are mentioned in the chapter on ætiology, but there are those who believe that too much post-operative sedation is an important factor in the inhalation abscess, and this seems to have enough practical importance to justify more specific emphasis. The treatment of lung abscess secondary to bronchial carcinoma is a disappointing enough subject, but the insertion of radon in a Tudor Edwards radon container has, by allowing bronchial drainage, given enough symptomatic relief to be included. Such criticisms are trivial and themselves open to argument. They do not detract from what may be described as a clear and masterly description of what was hitherto confused. Those who might doubt such an estimate should turn to page 163, paragraph 3, and they will be convinced. P.A.

SPORT

GUY'S HOSPITAL CLUBS' UNION BLUES' COMMITTEE

The following were awarded Blues and Half Blues at the Blues' Committee on Friday, 24th October, 1952 :—

Rugby Football

Full Blues	*Half Blues*
E. O. James	J. C. Burt
B. J. Clemin	D. K. Fairweather
	G. Screech
	G. D. Thomas
	S. C. C. Scott
	H. C. Meredith
	D. P. Honey

Cricket

	E. R. Gibbons
——	F. H. Trist
	M. J. Williams
	M. F. H. Willis

Association Football

B. S. H. Cornhill	N. L. Crabtree
J. F. Wylie	N. P. Burns
D. L. Oldfield	
P. J. Southgate	

Hockey

D. C. Linahan	J. I. Millar
C. Bishop	R. Park
	J. J. Hall
	M. H. Cox
	E. R. Gibbons
	H. C. F. Meyer
	W. N. B. Parker

Athletics

Full Blues	*Half Blues*
P. J. Frost	J. F. Groves
I. D. Hudson	
J. V. V. Lewis	

Rowing

R. C. Francis	I. McCall
	P. W. Hayward
	A. B. Aistrop
	K. A. Hillard

Lawn Tennis

J. A. A. Bullard	J. W. Osborn
P. J. Frost	Stafford Hooper

Swimming

D. A. Coppock	P. R. Hewett
P. J. Wege	D. L. H. Clark
	M. J. Coucher
	J. D. Lane

Sailing

D. B. Longmore	R. A. Harper

Shooting

	I. D. Green
——	H. C. F. Hudson
	W. A. St. John

RUGBY FOOTBALL

Guy's *v.* Bedford

At Bedford. Result: Lost 0—16

Guy's kicked off at Bedford and the resulting loose maul revealed the pattern the whole game was to follow: a battle between the heavy solid Bedford forwards and the faster but lighter Guy's pack. The play tended to be unspectacular for both sets of backs were cancelling themselves out with first-time tackling and excellent covering. But gradually Guy's began to dominate the loose and as the backs gained more confidence James was twice worked free and came within yards of scoring. Bedford thus spent most of the first half on the defensive but near half time their fly half made a brilliant opening and their international centres completed the movement to put Guy's five points down, against the run of the play. Although Guy's continued to attack bad finishing prevented their movements from bearing fruit and there was no further score in the first half.

As soon as Guy's began to play against the hill and wind the limitations of the forwards became apparent for although their spoiling was uneventful they were unable to prevent Bedford from obtaining most of the scrummages and line outs, and Guy's naturally had to take a defensive role. But it was well taken and only a superbly timed inside pass from the fly half to wing gave Bedford their second try. With Bedford winning the ball but unable to get it away the game developed into a forward battle of Welsh valley proportions. Guy's slowly gained the ascendency and had returned to the attack when Burt had to leave the field with an ankle injury. Guy's seven forwards now found the slope and their opponents' weight a little too much and the emphasis fell again on defence, apart from some excellent breakaways by forwards and backs. Guy's ably defended their line but as always happens in forward mauls free kicks were given away, two of which Bedford converted. Guy's thus lost 16–0 a game which they should have won in the first half, the points against being a little harsh even considering the fading of the forwards in the last ten minutes.

Rugby Football (cont.)—

Guy's *v.* Plymouth Albion

At H.O.P. Result: Won 11—6

As usual Guy's lost the toss and kicked off into the wind. Guy's were soon on the defensive as for the first quarter of an hour the Plymouth forwards took control of the game, but it was soon obvious that their backs did not have a great deal to offer and the Guy's line was not in great danger. But gradually the Guy's forwards began to win most of the set scrums and loose mauls and excellent running by the backs took the game into the Plymouth half. Although the Hospital backs always looked dangerous and threw the ball about in a confident manner a lack of decisiveness in their finishing prevented a score, while their opponents began to play the traditional west country game of close forward play with the half-backs using the touch line. But it was from one of the rare Plymouth movements that the first score came. Their fly-half broke on the blind side and sent the wing away ; he cross-kicked into the middle where both Howells and Pook tried to field the ball with the result that neither of them succeeded and a Plymouth forward was up to score an unconverted try. Thus Guy's changed ends three points down.

The second half resolved into a battle between the Plymouth forwards to close the game up and the Guy's pack to keep their three-quarters in motion. Honours were about even as Guy's persistently won the scrums and Plymouth the line outs, but gradually Guy's began to wake up and dominate the loose and the balance of the game swung towards them. Eventually Pook and Parry broke away from a line out, and after some interpassing Pook crossed for a try that evened the score. But this was not for long, for a few minutes later the Guy's wing-forwards were off-side and a penalty goal put Plymouth again in the lead. Guy's now attacked in fine style and Keen cut through in the centre to put Smith over under the post. Howells converted and Guy's were eight-six up. The Plymouth forwards now woke up and determined rushes, aided by wing-forwards who prevented the Guy's half-backs from using the ball when it was heeled, took the play into the Guy's 25. Determined tackling kept Plymouth out but Guy's were forced to concede a minor and from the resulting drop-out Kirkbride, Pook and Morgan rushed the ball the whole length of the field for Morgan to score a try in his first game for the Hospital.

Guy's now took complete control of the game apart from the line outs, but fine defensive play by the Plymouth scrum-half aborted most Guy's movements in the half-backs, and the Hospital were unable to press home their obvious advantage.

ASSOCIATION FOOTBALL

Guy's *v.* Exeter University

At H.O.P. Result: Won 4—2
18th October, 1952

This well balanced and skilful Guy's team beat their visitors from Exeter University after a fast and interesting game.

The opening produced some clever attacking movements from both teams and spectacular saves from both goalkeepers. G. Lee opened the score for Guy's with a quick shot from close in. Some spirited attacks were then made by Exeter with their left wing outstanding, and they were rewarded when their outside left scored a grand goal with a shot from just inside the penalty area.

The score of 1–1 at half time was a fair reflection of the first half's play.

Immediately from the kick-off the Exeter goalkeeper made a daring save from a hard shot by G. Lee. It was very noticeable that Guy's three half backs were taking control of the visitor's attack, and were supplying their own forwards with some beautiful passes. Matthews even found time to join his forwards and after neatly beating several opponents he placed the ball into the corner of the goal. Maggs had been hurt in an earlier collision but he pounced on to a loose ball and slammed it in to the top of the net to increase Guy's lead.

Guy's were now so completely in control that Southgate, who was helping his forwards with their shooting practice at the Exeter goal, was surprised by the breakaway of the Exeter right winger who gave his centre-forward a perfect pass to head in for Exeter's second goal. Guy's continued to bring out the best from Exeter's goalkeeper and a fourth goal was inevitably added by G. Lee after some neat passing between Southgate, Thomas and Maggs.

The whole team played well but Guy's must especially praise Fearn, R. Lee and Lipington in defence and Matthews and G. Lee for inspiring the mass assault in the second half.

Team : A. Fearn ; R. Lee, P. Southgate ; D. Matthews, D. Lipington, J. Brill ; B. Cornhill, D. Watson, C. Maggs, G. Lee, N. Thomas.

HOCKEY

Guy's 1st XI *v.* Woking 1st XI

Result: Lost 2—5

This is a new fixture for the hospital and a fast, enjoyable game ensued. The ground was damp following heavy overnight rain but played surprisingly well.

The first half opened with Guy's playing down a slight incline and attacking repeatedly. Sandfield opened the scoring following a short corner, but Keeley soon equalized for Woking. Willis gave Guy's the lead once more with a delicate shot which entered the goal just beyond the keeper's reach. At this stage the forwards were playing well and passing freely to one another across the field. Unfortunately Linahan, the fast centre-half, received an injury which slowed him considerably and which gave Keeley, the Woking centre-forward, more freedom than he would have normally enjoyed throughout the remainder of the game. Keeley once more equalized for Woking following an error which occurred when one of the defence tried to dribble the ball past an attacker when inside the circle: a cardinal sin.

After half-time Guy's once more attacked strongly and played fast, open hockey ; but alas, this was not to continue. The defence grew ragged, omitted to cover one another and showed a marked reluctance to clear quickly. This resulted in Graham scoring twice for Woking. The hospital forwards were also at fault. They neglected to cross pass and thus many promising movements failed to achieve their desired aim. Shortly before time Keeley scored again for Woking with the last goal of the match which completed a well-earned hat trick for him.

Guy's need not be discouraged by their defeat since it was inflicted on them by a team which made the most of their advantages and which played fast, open hockey. It is to the credit of the hospital that they never gave up trying and if their inside forwards had been more accurate in shooting and the defence

quicker in clearing, a victory would most probably have resulted.

A word must be said about two newcomers to the 1st XI: R. Paul and R. W. Elsdon-Dew, playing at inside right and right half; they played useful constructive hockey throughout and will undoubtedly be an asset to the team in the future.

Scorers: Guy's: Sandfield, Willis. Woking: Keeley 3, Graham 2.

Team: C. Bishop; J. J. Hall, H. M. Tuddenham; R. W. Elsdon-Dew, D. Linahan, R. Sandfield; M. Cox, R. R. Paul, M. Willis, J. I. Millar, J. M. Cautley.

Results:

Guy's 2nd XI *v.* **Woking 2nd XI**

Lost 4—7

Guy's 3rd XI *v.* **Hay's Wharf**

Lost 2—5

Further reports are held over until our next issue.

LADIES' HOCKEY

Results:

Guy's *v.* **University College Hospital**

Drew 1—1

Guy's *v.* **St. Bartholomew's Hospital**

Won 4—2

BOXING

On 24th October, Guy's Hospital Amateur Boxing Club competed for the first time since the war in the University of London Championships. The Harry Preston Trophy is an elegant cup presented to the Hospital or College who win a sufficient number of points in these trials.

With a team comprised mainly of new blood and only including one old blue, Guy's won the Harry Preston Trophy, Imperial College being a close second. They went as far as to claim part ownership as they claimed an extra two points for a walk over in the finals due to a semi-finalist retiring with a hand injury. The spirit of each Guy's competitor was magnificent. It is difficult to commend any particular man, as each deserves special mention. But to exemplify the grand spirit that prevailed none could show it more than Allardyce, Parnell an American student at Guy's, and Willams, a freshman this term who boxed the London University Captain. The team that won the cup were:—

J. Allardyce, J. Kelly, A. V. Jones, R. A. Peebles, B. Parnell, C. Wallace, W. Watson, A. Willams.

SQUASH

The match between United Hospitals and the Army will be played at Guy's on Saturday, November 8th, at 3 p.m.

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL, S.E.1

The Board of Governors of Guy's Hospital invites applications for the appointment of a **Consultant Radiologist** for attendance on 9 sessions a week. The duties include Radiological work in the Medical, Surgical and Dental Departments. The remuneration for the appointment will be in accordance with the Ministry of Health's rates for consultants.

Applications (10 copies) together with the names of three referees should be sent to the **Superintendent,** Guy's Hospital, London Bridge, S.E.1, not later than **14th November, 1952.** Canvassing of members of the Board or of the Advisory Appointments Committee will disqualify.

Applications are invited for the following House Appointments at Guy's Hospital, duties to commence on **1st December, 1952**:—

Assistant House Surgeons	5
Assistant House Physicians (see note following)	2
Out-Patient Officers	4
House Surgeons..	2
House Physicians	3
Ear, Nose and Throat House Surgeon	1
Dermatological House Physician ..	1
Children's House Physician	1
House Surgeon to the Thoracic Unit..	1
House Physician to the York Clinic ..	1

NOTE:

The appointment of Assistant House Physician has been reinstituted as the first step towards putting into effect a scheme for Pre-Registration Appointments. In accordance with the Medical Act, 1950, *Medical Students who pass their qualifying examinations after* 1st *January,* 1953, *will be required to complete a year's appointments as House Officers in recognized hospitals or institutions before they become eligible for full registration as medical practitioners. The appointment of Assistant House Physician will be for a period of three months in the first instance, with the possibility of reappointment for a second three months to Assistant House Physician or some other post.*

Further details of the complete scheme for Pre-Registration Appointments will be published at a later date.

Applications are also invited for the following posts:—

Resident Obstetrician, commencing 1.1.53..	1
Resident Anæsthetist, commencing 7.1.53..	1

The Medical Committee will also consider applications for appointments at outer Hospitals, as follows:—

ORPINGTON HOSPITAL

Orthopædic House Surgeon (to Mr. Batchelor)	1
Throat and Ear House Surgeon ..	1
House Surgeon (to Mr. Laurenson) ..	1

PEMBURY HOSPITAL

House Surgeon	1

—continued overleaf

Appointments Vacant (cont.)—

QUEEN MARY'S HOSPITAL, SIDCUP
House Surgeon 1
(6 months' appointment. First 3 months General Surgery and Orthopædics, second 3 months General Surgery.)

JOYCE GREEN HOSPITAL, DARTFORD
House Surgeon 1

ST. OLAVE'S HOSPITAL, BERMONDSEY
House Surgeon 1

Applications, giving choice of post and choice of Hospital in order of preference, should be lodged in the Superintendent's Office not later than **Monday, 10th November, 1952.** Candidates who apply for appointments at Guy's as Assistant House Surgeons, Assistant House Physicians, House Surgeons or House Physicians should indicate their preference for firms.

SIMS COMMONWEALTH PROFESSOR

Sir Charles Symonds has been appointed Sir Arthur Sims Commonwealth travelling professor for 1953.

UNIVERSITY OF LONDON

Academic Postgraduate Diploma in Clinical Pathology

October, 1952

G. A. K. Missen

PASS LIST

CONJOINT BOARD

October, 1952

L.R.C.P., M.R.C.S.

Final Examination

Pathology

D. P. Adamson
B. L. Anderson
P. D. Bowen
T. A. P. Clarke
P. Cook
P. G. Dunbar
G. Evans
R. C. Francis
J. A. Jemson
K. Kelly
Pamela M. Ordish
T. B. Stephen
M. K. Strelling
B. A. Tudgay

Medicine

B. L. Anderson
F. A. F. Biddle
W. M. S. Boyd
*J. A. D. Briggs
R. Y. Calne
*B. J. Cremin
E. C. Dawson
G. Evans
Sheila M. Forbes
*A. I. Fram
*J. M. S. Grieve
J. A. Jemson
C. E. Lay
G. L. Money
J. F. Pritchard
*W. A. G. Roper
J. A. Rozario
W. A. St. John
*E. McK. Sycamore
A. D. Tuddenham
B. A. Tudgay
J. L. Turk
A. H. Vaughan
Dorothy J. Whitney
K. J. Zilkha

Surgery

*J. A. D. Briggs
*B. J. Cremin
*L. M. Davis
*A. I. Fram
*D. J. Green
*J. M. S. Grieve
L. Yoke Htyan
E. M. James
*H. E. Lichtenstein
J. S. Norell
*J. E. Rees
*E. McK. Sycamore

Midwifery

P. O. Hirsch
*J. U. MacWilliam
A. D. Tuddenham

* Have completed the Examination

D.T.M.& H.

K. R. J. Coates
S. S. Epstein
Henry Foster
R. A. R. Topping

STUDENTS' HEALTH SERVICE

Mass Miniature X-Ray

The Ministry of Health mass miniature radiographic unit will be at Guy's on November 17th and subsequent days for the routine examination of students in the Medical and Dental Schools.

Before this date, notices will be posted in the Medical School, Dental School, Colonnade and College, giving the times of appointments. Owing to the large number of students concerned, it is regretted that the times of individual appointments cannot be changed and it is hoped that all students will make every endeavour to attend promptly at the time asked so that examination may proceed rapidly and efficiently.

Should a student find that his name does not appear on the list, he should communicate at once with the Secretary to the Students' Health Service (Telephone HOP 3500, Ext. 389).

PAPERS BY GUY'S MEN

Brain, F. H. Gibson, C. S. (the late), and others. The Nature of Benzyl Sulphide-Dibromo-and-Dichloro-Gold. *J. Chem. Soc.*, 1952, p. 3686.

Collier, H. Neil. Examination for Life Assurance. *Med. Pr.*, 1952, **228,** 375.

Forman, L. The Skin Manifestations of Malignant Disease with Special Reference to Vascular Changes and Dermatomyositis (Lecture given at the Institute of Dermatology, St. John's Hospital for Diseases of the Skin). *Brit. med. J.*, 1952, ii, 911.

Hankey, George T. Adamantinoma, Primitive Type, Treated both Surgically and with Radiotherapy. *Proc. R. Soc. Med.*, 1952, **45,** 707.

Maizels, M., and another. Distribution of Ions in Suspensions of Human Erythrocytes. *J. Physiol. Lond.*, 1952, **118,** 40.

Matthews, E. The Problem of Dental Caries. *The General Practitioner*, 1952, **23,** 222.

Ogilvie, Sir Heneage. Whither Medicine ? *Lancet*, 1952, ii, 820.

Robson, J. M. The Newer Antibiotics (Lecture delivered at the Royal College of Surgeons of England). *Ann. R. Coll. Surg. Engl.*, 1952, **11,** 242.

Robson, W. M. Nurse-Training Scheme for Ex-Tuberculosis Patients. *Brit. med. J.*, 1952, ii, 933.

Thompson, R. H. S. Some Biochemical Features of the Peripheral Neuropathies. *Proc. R. Soc. Med.*, 1952, **45,** 664.

CHANGE OF ADDRESS

J. R. Forbes, M.D., Pen-y-Wern, near Mold, Flintshire. Tel. Caergwrle 131.

BIRTHS

CLARE.—On 19th October, 1952, at Bushey Maternity Hospital, to Heather (née Campbell), wife of J. R. C. Clare—a son.

SARRE.—On 29th September, 1952, at the Maternity Hospital, Amherst, Guernsey, to Mary June (née Taylor), wife of Frank le C. Sarre—a daughter (Judith Anne).

MARRIAGE

WILSON—SMITH.—On 11th October, 1952, at St. Peter's, Vere Street, W.1, Edric Frank Wilson, F.R.C.S., of Plymouth, to Dorothy Smith, formerly Sister in Charge, Operating Theatres, Guy's Hospital.

EDS. { E.R.D.T. / R.D.W.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1678 15*th November* 1952 *One Shilling*

PASSIM

DOCTORS become very attached to their stethoscopes. Through years of partnership an understanding develops : a sympathy which creates confidence in the one of the ability of the other to respond faithfully to every crackle, hiss, rumble and thump. Some doctors favour a bell, some favour a diaphragm, and some have it both ways, but whatever model has by chance become the constant companion, to use another man's instrument is just not quite the same. The sounds are there but in an unfamiliar pitch and timbre, and they do not convey the same vivid impression of fluid and air in motion : there is a whisper, not a poorly closing valve, a sigh not a bronchus in spasm. Students' stethoscopes are generally accepted to transmit sounds different from those of their tutors and indeed, a tutor himself, if a colleague should hear something different, may believe that the fellow has listened in the wrong place, interpreted incorrectly, or even got fluff in his ear pieces rather than admit that the trusted partnership has failed.

Less than 150 years ago physicians of the day had only a silk handkerchief as listening apparatus, but this must surely have given great scope for individual taste. A flamboyant square of vivid colour and design would have been the choice of some ; others certainly insisted on one of sombre hue, leaving for the aristocrats of the profession severe white with discreet crest or monogram. Doctors owe a great debt to Laënnec and his trumpet for releasing them from the uncomfortable stooping inherent in this ear to silk-covered body business ; but it was not until the introduction of flexible tubes that the listener could withdraw and contemplate the source of the noises in his ears with a learned air in keeping with his professional manner.

One could perhaps classify medical men according to their stethoscopic behaviour. Some slide their tubes smoothly from under the jacket where ear pieces have made their mark on bracer and waistcoat ; some like conjurors—or like policemen producing handcuffs—present the stethoscope from the hip pocket. There are those who pull it knotted like a trick puzzle from their jacket pocket, others carry a bag—black or brown, flat or Gladstonian—to hide in a city man's guise this badge of their calling, and yet others wear the instrument like a chain of office. Is it used with the concentration of the deaf with a hearing aid, or does the examiner run it over the body as if bound by convention ? Perhaps he handles his bell as if it were capable of effecting a cure, or does he listen with distantly focussed eyes and the slightest smile as if what he hears reminds him of a pleasant meeting ?

As varied as the ways in which the stethoscope may be carried and presented are the uses to which it may be put. This truly ubiquitous instrument has seen service, suitably adapted, as jerk hammer, trumpet mouth-piece, a lead to control a dog and as a siphon for taking petrol from a motor-cycle tank.

Today's model has survived many years of medical advance, but now we are told that we should hear better with shortened tubes of narrower bore. Yet as the older physicians retained their wooden trumpets when younger men were festooning themselves with pipe-lines to each ear, so it may be many years, if ever, before doctors again stoop to listen.

Some speculation has been aroused by the activities of a small number of men who have lately been seen climbing around the parapets of Guy's House and suspending substantial blocks of lead from long cords. At one time last week the forecourt was almost festooned with these plumb lines. The secret is that a survey is being made of the structure of the 18th century building to see whether it is suitable for preservation when the new Guy's is being built nearby. We understand that there is a body of opinion in the hospital which favours sweeping away what might be described as outmoded and insecure buildings. Others—and we believe the majority of opinion supports them—are most anxious to preserve what, after all, is still the genuine Guy's Hospital. There is substantial architectural interest in these buildings though this is, no doubt, far exceeded by their sentimental value. We believe there is still room for sentimentality even in a mechanical age, and hope unashamedly that Guy's House will be spared.

In this issue there is a review of Dr. Stafford-Clark's book—*Psychiatry Today*. The reviewer notes that mention is made of Professor Finesinger's study which revealed the successful results of psychotherapy given by comparatively inexperienced students under his supervision. The psychotherapy—under supervision—of out-patient cases now goes on at Guy's and may become as regular a feature of undergraduate clinical experience here as are " minor ops." and " the district ".

This is but one of the developments in our psychiatric department, which provide us—medical students and nurses—with ever-increasing facilities for first-hand experience with mentally ill adults and children. Thanks are due to our Psychiatric Director, Dr. T. A. Munro, and those helping him, for their efforts on our behalf, and opportunities are available to take every advantage of the facilities provided here. Few London Teaching Hospitals have an in-patient psychiatric department on the premises where both medical students and nurses do a period of training just as in other specialised departments.

Nor do the facilities of York Clinic provide for the academic needs of medical and nursing students only, for it is now possible for the consultants of any department in the hospital to admit their private patients—whether purely psychiatric or merely showing psychiatric complications or addenda—to the private beds of York Clinic under their own care. This is important in view of the opinion expressed by Dr. Curran mentioned in our review, and because psychiatric cases, whoever looks after them, may require special facilities by way of trained nursing staff, male nurses, apparatus or ward structure, which are not available in Nuffield House.

November — **ACADEMIC**

		Exhibition. Surgical Department. " Obstructive Jaundice."
17th	1.00.	Dr. Forman. Clinical Lecture. " . . . the Wood from the Trees."
18th	1.00.	Mr. Morgan. Clinical Lecture. " Thrombosis of the Retinal Vein or its Branches."
	5.00.	Dental Society. Film. " Let's Keep Our Teeth." Dental Theatre. (Preceeded by tea in Lower Spit at 4.45 p.m.)
20th	1.00.	Mr. Glover. Clinical Lecture. " Surgery of the Adrenal Glands."
	5.00.	X-ray Meeting. Gordon Museum.
21st	1.00.	Dr. Campbell. Clinical Lecture. " High Blood Pressure."
	2.15.	Combined Round. Preclinical Classroom.
22nd	10.00.	Clinico-Pathological Meeting. Clinical Theatre.
24th	1.00.	Dr. Munro. Clinical Lecture.
25th	1.00.	Dr. Evans. Clinical Lecture. " Vitamins."
27th	1.00.	Mr. Massie. Clinical Lecture. " Acute Pancreatitis."
	5.00.	X-ray Meeting. Gordon Museum.
28th	1.00.	Dr. Kauntze. Clinical Lecture. " Symptoms."
	2.15.	Combined Round. Preclinical Classroom.

Obituary

DR. CHARLES JENKINS, who died recently at Auckland, New Zealand, received his medical training at Guy's Hospital, proceeding to the degree of L.R.C.P., L.R.C.S.(Edin.), L.F.P.S.(Glas.).

In 1902 he reached New Zealand as a ship's surgeon, and was subsequently appointed Medical Officer of Health for the Chatham Islands. Later he practised at Manurewa from 1922 to 1946. He served in the Boer War in the R.A.M.C. and in the First World War in the New Zealand Medical Corps ; in the late war he was a member of the examining board at Papakura military camp. He was honorary physician to the Manurewa Children's Home for more than 20 years. We offer our deep sympathy to his widow and their two sons.

MR. NIGEL STUART CAMPBELL, whose death is recorded in this issue, qualified L.D.S., R.C.S. at Guy's Hospital after serving throughout the 1914–18 war in the Hussars.

In 1922 he began dental practice in Folkestone where he rapidly became a much respected and popular figure not only on account of his professional skill, but also because of his many social interests, notably as a Freemason and as chairman of the Folkestone branch of the Scottish Society.

During the late war his good spirits in carrying out fire-watching duties in addition to heavy professional commitments will long be remembered. He leaves a widow, son and daughter, to whom we extend much sympathy.

NOTICES

GUY'S THEATRE CLUB

presents

"*BLACK LIMELIGHT*"

by

GORDON SHERRY

to be performed in the

PHYSIOLOGY THEATRE

on

Monday,	1st	December,	1952,	at 7.30	p.m.
Tuesday,	2nd	,,	,,	,, 7.30	,,
Wednesday,	3rd	,,	,,	,, 6.30	,,
Thursday,	4th	,,	,,	,, 7.30	,,
Friday,	5th	,,	,,	,, 7.30	,,
Saturday,	6th	,,	,,	,, 8.0	,,

Admission is free but a collection will be made during each performance. The Club, however, will be glad to receive donations beforehand.

Cheques should be made payable to "Guy's Theatre Club".

Any proceeds over and above the cost of this production will be given to the

KING GEORGE VI NATIONAL MEMORIAL FUND.

It is therefore hoped that this appeal will meet with an unusually generous response.

Seats may be reserved by application to the *Hon. Secretary, Guy's Theatre Club, Guy's Hospital, London, S.E.*1.

CHRISTMAS CARDS

Christmas Cards are on sale in the *Gazette* Office, 6, St. Thomas's Street, S.E.1. Prices : 6*s.* 6*d.* and 3*s.* 6*d.* per dozen, with envelopes (per post 6*d.* extra). Supplies are limited, and early purchase is advised.

INSTRUMENTS AND EQUIPMENT WANTED

Surgical instruments and equipment are urgently needed by veterinary surgeons in St. Ann, Jamaica, which is a centre for animal surgery.

It is thought that there may be old Guy's surgeons who have some instruments which they would be prepared to give to the Animal Hospital there.

The following are required :—

Scalpels.
Spencer Wells forceps (assorted sizes).
Tissue forceps.
Long curved forceps.
Bone forceps.
Curved and straight scissors.
Curved and straight needles.
Spoons and scoops.
Retractors.
Towel clips.
Hypodermic syringes (all sizes to 20 c.c.s.) and needles.
Rubber catheters and tubing.
Obstetric forceps and hooks.
Liston's volsellum forceps.
Dental forceps.
Drop bottles for chloroform.
Dover's inhaler for chloroform.
Waterproof overalls.
Gowns.
Rubber gloves.
Sutures, ligatures, dressings, plaster bandages.
Microscope, oil immersion, with 2/3rds, 1/6th 1/12th objectives.

Anyone who is able to help should write to the Hon. Secretary of the St. Ann Branch of the Jamaica Society for the Prevention of Cruelty to Animals :—

Mrs. Anderson Cocks, Knapdale, Brown's Town, St. Ann, Jamaica, B.W.I.

Obstructive and Pancreatic Sequelæ of Choledochotomy

By KENNETH STARR, M.S., F.R.C.S., F.R.A.C.S., F.A.C.S.

Sydney University, Australia

Abstract of a Lecture delivered at Guy's Hospital Medical School on Thursday, 23rd October, 1952

THE material in this lecture was based upon an address given to the Mayo Foundation on 3rd October, 1952. It deals with the study of two series of cases requiring biliary surgery. The first group, prior to 1947, comprises 384 cases, of which 92 required opening of the common bile duct. The second series comprises 260 cases operated upon in the five-year period 1947–52, and involving 66 explorations of the common bile duct.

It has long been appreciated that there are two methods of dealing with the common bile duct after exploration. It might be said that the larger school drains the common bile duct by the insertion of a tube (including the T-tube) ; the smaller school closes the common bile duct after dilating the ampullary end, and merely drains down to it. In the first series of cases the lecturer inserted a drainage tube into the common bile duct. In a review of these cases in 1947 certain points became obvious and caused some concern.

In the first place, tubal drainage was not always certain drainage. There were five cases of obstructive jaundice, despite the presence of the tube, which occurred within seven days of operation, and which were cured by removal of the drainage tube. Further, two cases of post-operative biliary peritonitis were encountered despite the indwelling tube, and both proved fatal. Secondly, there were two cases of irremovable T-tubes requiring a difficult laparotomy for their removal. Thirdly, in one case prolonged external loss of bile led to a fatal issue from fluid and electrolyte loss. Fourthly, four cases of mild stricture of the duct required further laparotomy. Fifthly, 15 cases sustained recurrent obstructive jaundice as a sequel of choledochotomy, and in only five of these were stones discovered. All 15 cases, however, manifested one common pathological feature, and that was a rigid inelastic fibrosis of the ampullary region of the common bile duct. This condition is referred to in the literature as benign fibrosis of the sphincter of Oddi.

In the second series of cases it was determined that where this condition could be demonstrated in exploring the duct the fibrotic area would be divided, with or without a short-circuit above it. With this in view, the ampulla was divided through a trans-duodenal approach (an operation now called sphincterotomy) ; or, where the common bile duct was dilated, a short-circuit would be performed between the first part of the duodenum and the common bile duct by the side-to-side method. In the second series of cases 54 patients were so dealt with, 10 by the former and 44 by the latter method. Cholangitis has not followed in any of these cases, and no further laparotomy has been required on account of obstructive jaundice. It would appear, therefore, that the local condition has improved or that the drainage has been successful.

Twenty-two cases had residual symptoms of pancreatic pain. In 12 of these the symptoms were mild (chiefly fatty diarrhœa, which readily improved after the administration of pancreatic extract). In 10 of the cases, however, the pain was so severe that incapacitation resulted. Sedatives were required daily and in some instances laparotomy was performed in the mistaken view that a perforated ulcer was present.

In view of the belief, therefore, that fibrosis of the lower end of the common bile duct was an important pathological finding in recurrent obstructive jaundice, the idea was promoted that this pancreatic state (subacute recurrent pancreatitis) was due to a fibrosis at the ampullary end of the pancreatic duct. A young patient was operated upon in 1948, the stricture at the orifice of the pancreatic duct being readily demonstrated and divided, with a dramatic

result and subsequent freedom from pancreatic symptoms. Six further patients during the last four years have been similarly dealt with, with similar results. Two patients with a small shrunken hard pancreas have not benefitted because the orifice could not be found, and although internal biliary drainage was provided there was no improvement. The contrast between the two series of cases, the very beneficial results attending division of the stricture and subsequent internal biliary drainage is such as to encourage further investigation of the proposition that obstruction of the pancreatic orifice is fundamental to pancreatic pathological conditions.

Biopsy from the pancreatic orifice in these cases was very disappointing, and extensive fibrosis was only demonstrable after decades of biliary disease. It is worthy of mention, however, that the fibrosis in these patients was not restricted to the pancreatic orifice or to the ampullary end of the common bile duct, but could also be seen in the body of the pancreas, in the liver, and most extensively in the gall bladder. It is difficult to accept an infective origin for these states and attention is again directed to the similarity between these pathological conditions and that of rheumatoid arthritis (the collagen diseases). If this can be sustained, a hormonal origin must be investigated, and immediately the high incidence of carcinoma in the ampullary region of the common bile duct is emphasized.

It is not too extravagant to hope that from a new view of biliary and pancreatic fibrosis may come a new understanding of the pathology of acute and subacute pancreatitis, and indeed of gall stones.

THE WILLS LIBRARY

The Wills Library Committee endeavour to make the library as useful as possible both to the staff and students working at Guy's Hospital by providing as many textbooks and as many journals as they are able.

At the stocktaking for the last two years they have been disturbed by the number of books that is taken from the library and not returned. The textbooks can be replaced, but the additional cost means that so many copies cannot be available to the students who wish to read them in the library or to take them out. When parts of journals are missing the loss is even more serious because it is not always possible to replace the missing parts, though every effort is made to do this, and a volume may have to be bound with parts missing. When a bound volume of the earlier part is lost the possibility of replacing it is very small and, apart from the inconvenience to those who wish to consult this for their work, the value of the complete set is very greatly reduced.

It seems most unlikely that any one wishes to steal a journal from the library, and the Library Committee would appeal to all users of the library to ask themselves whether they may not have any journal at home or somewhere in the hospital that they have forgotten, and if so, if they will return it at once.

MAURICE CAMPBELL,

Hon. Chairman, Wills Library.

The following periodicals are missing :—

Acta Medica Scandinavica, 1951, Vol. 138, No. 3 : 1951, Vol. 140, No. 1–2 (double number).
American Heart Journal, 1951, Vol. 42, No. 5 (Nov.).
American Journal of Medical Sciences, 1952, Vol. 222, No. 5 (Nov.).
Annals of the Royal College of Surgeons of England, 1951, Vol. 9, No. 1 (July).
Annals of Surgery, 1951, Vol. 134, No. 1 (July).
Brain, 1951, Vol. 74, No. 3.
Circulation, 1952, Vol. 5, No. 3 (March).
Journal of Clinical Investigation, 1951, Vol. 30, No. 11 (Nov.).

Bound Volumes :—
Practitioner, 1929, Vol. 122.
Proceedings of the Royal Society of Medicine, 1917, Vol. 10, Part 1 : 1937–8, Vol. 31, Part 1.

Breast Feeding

By R. C. MAC KEITH, M.A., D.M., F.R.C.P.

THERE are good reasons (Figs. 1 and 2)* for recommending breast feeding but the virtues must not be over-emphasised, for many women try hard and fail and would be unnecessarily depressed if they had been told that breast feeding was essential. In the best circumstances there is but little advantage in physical health although there may be emotional advantages in the close physical contact that breast feeding necessitates. It is for doctors to know about lactation and the measures most likely to promote success, so that we may help those mothers who are anxious to breast-feed their babies.

The amounts of secreting tissue, fibrous tissue and fat in different breasts varies (Fig. 3) and the overall size of a breast is no evidence as to whether it will produce much milk or not. The breast is an unusual organ in that in a fully developed state it is present only in the later part of pregnancy and during lactation. In the early part of pregnancy the ducts develop and bud out and these buds later develop into secretory alveoli (Fig. 4). The alveoli disappear when lactation ends.

In between feeds milk is stored chiefly *in the alveoli*. Fig. 5 (*a*) and (*b*) shows two quarters removed at the same time from a goat's udder five hours after the previous milking. The former has been milked and the alveoli are empty. The latter has not been milked and the aveoli are full.

Fig. 6 shows myoepithelium. The existence of this tissue has only lately been shown by Richardson (1949). It is contractile and is probably the mechanism whereby milk is brought up from the alveoli to the nipple.

The nipple should be protractile (Fig. 7). When pinched behind the areola, it should come forward. The baby sucks the nipple " like a cherry on the end of a soft stalk " right into his mouth (Fig. 8). He sucks on it to keep it well into his mouth. The sucking may help to draw the milk out, but mostly the milk is squeezed out between the hard palate and the tongue ; just the same action as in milking the teat of a cow's udder.

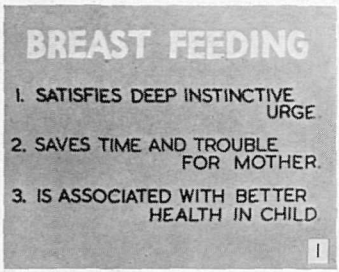
Hormones are important both in promoting growth of the breast and the secretion of milk. Oestrogens give some duct growth at puberty (Fig. 9) and more in early pregnancy. In the later part of pregnancy, with progesterone, they cause growth of secretory alveoli for lactation. Before pregnancy there is a low blood œstrogen and no milk (Fig. 10). During lactation there is moderate blood œstrogen and milk is produced. During pregnancy there is much œstrogen and no milk. The important corollary (Fig. 11) is that during lactation, milk production can be suppressed by raising the blood œstrogen.

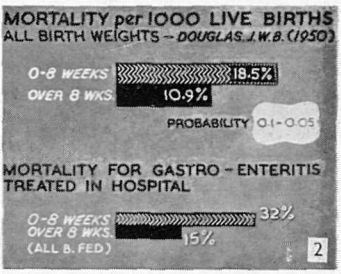
Milk *supply* depends not only on hormones but also on the *demand* for it. A wet nurse can produce far more milk if she is given five babies than if she is only given two or three (Fig. 12). There are two steps in milk production—*secretion* in the alveoli and *propulsion* from alveoli to the nipple (Fig. 13). When a baby is suckled, the mother has a prickling feeling in the breast. This is called the *draught reflex*. The *afferent* impulse (Fig. 14) is from the skin of the nipple ; the *efferent* impulse is the carriage of posterior pituitary hormone in the blood stream to the breast where it acts on the smooth muscle and myoepithelium.

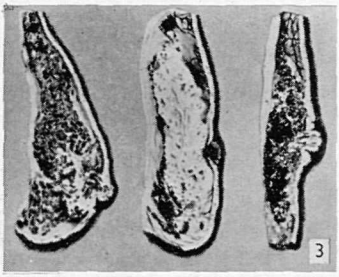
If the breast is allowed to be over-full for a long time, then the milk output falls, and if the over-filling continues the secretory tissue atrophies. A high pressure in the udder reduces milk secretion (Fig. 15).

The composition of human milk (Fig. 16) differs from that of a cow. The first is roughly 2, 4 and 8 per cent., while the cow's milk is 4, 4 and 4 per cent. protein, fat and sugar. Human milk is *not* " too weak " for human babies because they do not have to grow so fast as calves (Fig. 17).

* *All references are to the illustrations on the following four pages.*


BREAST FEEDING
1. SATISFIES DEEP INSTINCTIVE URGE
2. SAVES TIME AND TROUBLE FOR MOTHER.
3. IS ASSOCIATED WITH BETTER HEALTH IN CHILD
1


MORTALITY per 1000 LIVE BIRTHS
ALL BIRTH WEIGHTS – DOUGLAS, J.W.B. (1950)
0-8 WEEKS 18.5%
OVER 8 WKS 10.9%
PROBABILITY 0.1-0.05
MORTALITY FOR GASTRO-ENTERITIS TREATED IN HOSPITAL
0-8 WEEKS 32%
OVER 8 WKS 15%
(ALL B. FED)
2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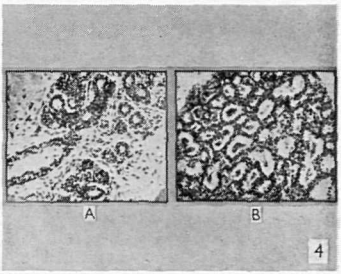
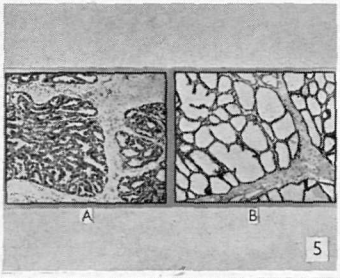
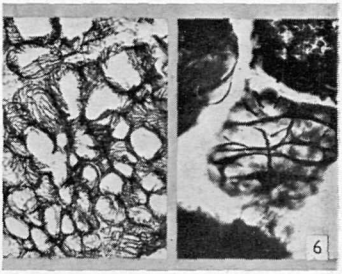

A
B
4


A
B
5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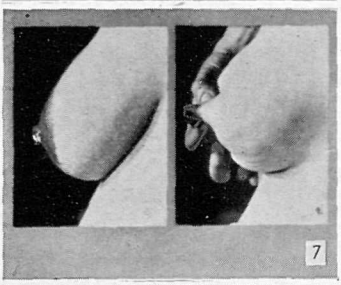
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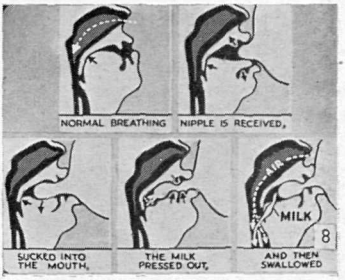
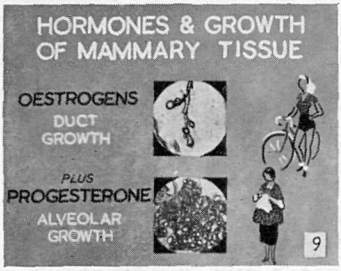
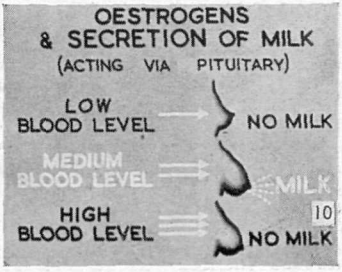
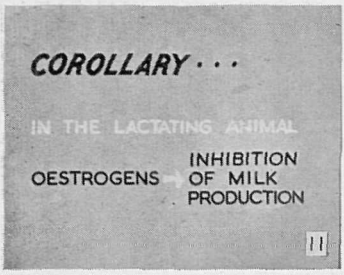
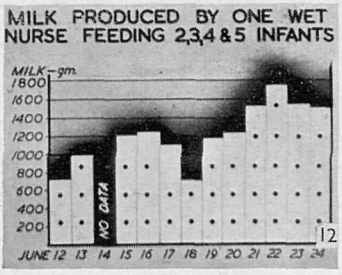
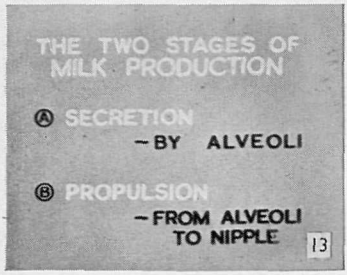

NORMAL BREATHING
NIPPLE IS RECEIVED,
AIR
MILK
SUCKED INTO THE MOUTH,
THE MILK PRESSED OUT,
AND THEN SWALLOWED
8

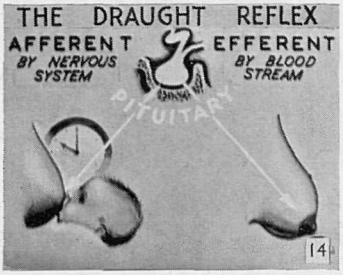

HORMONES & GROWTH OF MAMMARY TISSUE
OESTROGENS
DUCT GROWTH
PLUS
PROGESTERONE
ALVEOLAR GROWTH
9

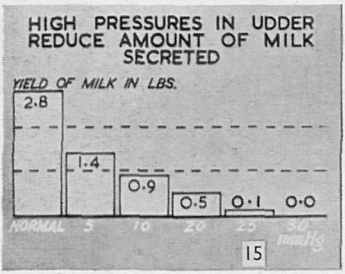

OESTROGENS & SECRETION OF MILK
(ACTING VIA PITUITARY)
LOW BLOOD LEVEL
NO MILK
MEDIUM BLOOD LEVEL
MILK
HIGH BLOOD LEVEL
NO MILK
10

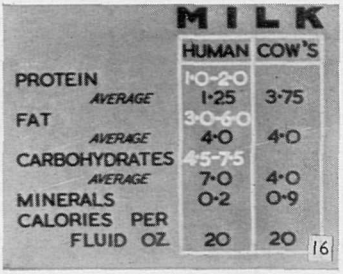

COROLLARY · · ·
IN THE LACTATING ANIMAL
OESTROGENS
INHIBITION OF MILK PRODUCTION
11

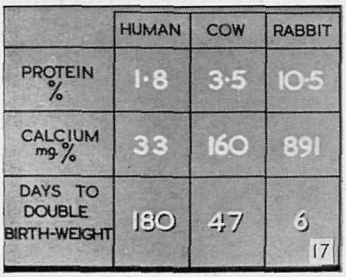

MILK PRODUCED BY ONE WET NURSE FEEDING 2,3,4 & 5 INFANTS
MILK—gm.
1800
1600
1400
1200
1000
800
600
400
200
NO DATA
JUNE 12 13 14 15 16 17 18 19 20 21 22 23 24
12

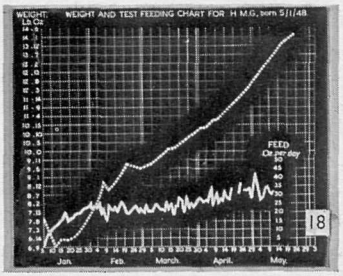

THE TWO STAGES OF MILK PRODUCTION
A SECRETION
– BY ALVEOLI
B PROPULSION
– FROM ALVEOLI TO NIPPLE
13

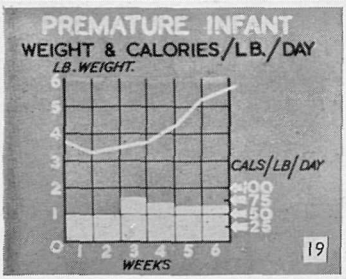

THE DRAUGHT REFLEX
AFFERENT
BY NERVOUS SYSTEM
EFFERENT
BY BLOOD STREAM
PITUITARY
14

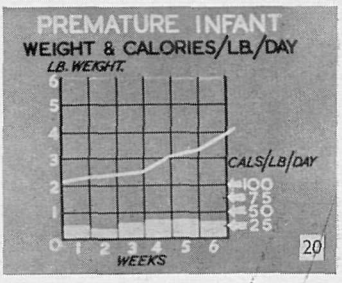

HIGH PRESSURES IN UDDER REDUCE AMOUNT OF MILK SECRETED
YIELD OF MILK IN LBS.
2·8
1·4
0·9
0·5
0·1
0·0
NORMAL 5 to 20 25 30 months
15

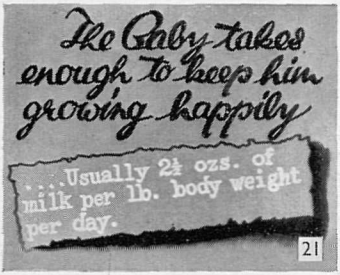

MILK
HUMAN
COW'S
PROTEIN
AVERAGE
1·0-2·0
1·25
3·75
FAT
AVERAGE
3·0-6·0
4·0
4·0
CARBOHYDRATES
AVERAGE
4·5-7·5
7·0
4·0
MINERALS
0·2
0·9
CALORIES PER FLUID OZ.
20
20
16

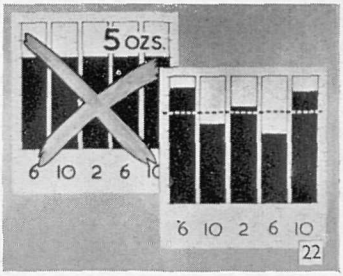

HUMAN
COW
RABBIT
PROTEIN %
1·8
3·5
10·5
CALCIUM mg. %
33
160
891
DAYS TO DOUBLE BIRTH-WEIGHT
180
47
6
17


WEIGHT AND TEST FEEDING CHART FOR H M.G. born 5/1/48
WEIGHT Lbs Oz
FEED Oz per day
Jan.
Feb.
March.
April.
May.
18

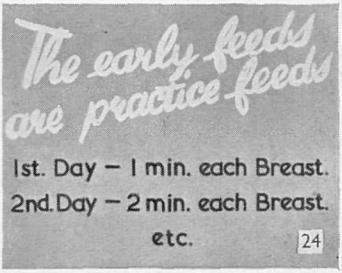

PREMATURE INFANT
WEIGHT & CALORIES/LB./DAY
LB. WEIGHT.
CALS/LB/DAY
100
75
50
25
WEEKS
19

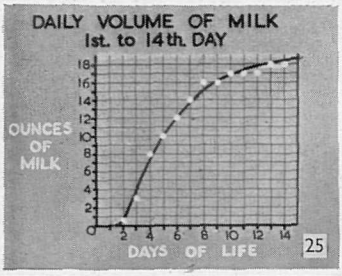

PREMATURE INFANT
WEIGHT & CALORIES/LB./DAY
LB. WEIGHT.
CALS/LB/DAY
100
75
50
25
WEEKS
20

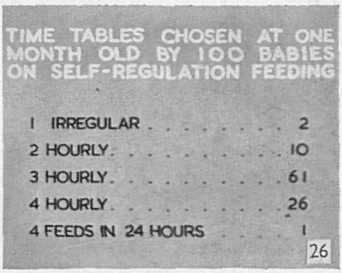

The Baby takes enough to keep him growing happily
....Usually 2¼ ozs. of milk per lb. body weight per day.
21

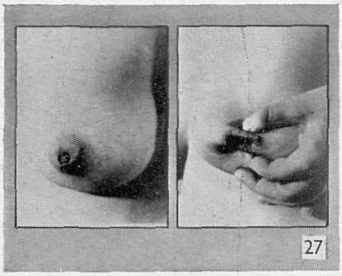

5 ozs.
6 10 2 6 10
6 10 2 6 10
22

23


The early feeds are practice feeds
1st. Day – 1 min. each Breast.
2nd. Day – 2 min. each Breast.
etc.
24


DAILY VOLUME OF MILK
1st. to 14th. DAY
OUNCES OF MILK
DAYS OF LIFE
25


TIME TABLES CHOSEN AT ONE MONTH OLD BY 100 BABIES ON SELF-REGULATION FEEDING
1 IRREGULAR 2
2 HOURLY 10
3 HOURLY 61
4 HOURLY 26
4 FEEDS IN 24 HOURS . . 1
26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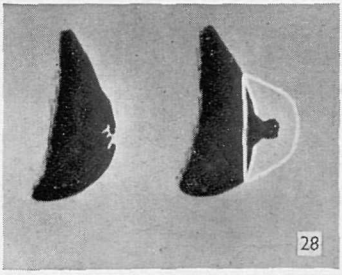
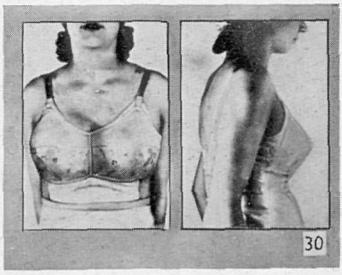

28

4 PINTS A DAY
29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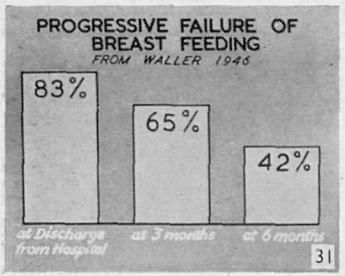
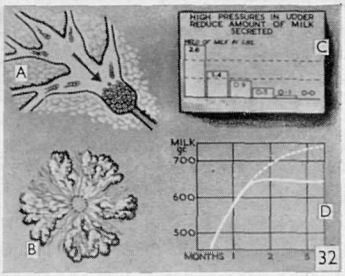

PROGRESSIVE FAILURE OF BREAST FEEDING
FROM WALLER 1946
83%
65%
42%
at Discharge from Hospital
at 3 months
at 6 months
31


A
B
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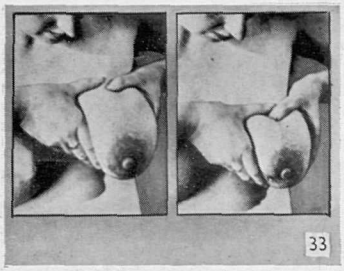
D
HIGH PRESSURES IN UDDER REDUCE AMOUNT OF MILK SECRETED
MILK
700
600
500
MONTHS 1 2 3
32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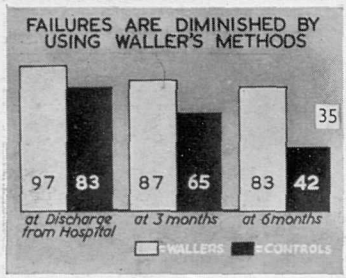
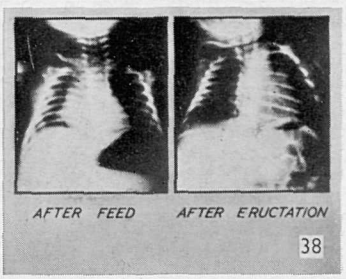
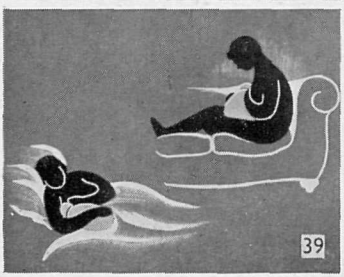

FAILURES ARE DIMINISHED BY USING WALLER'S METHODS
35
97
83
87
65
83
42
at Discharge from Hospital
at 3 months
at 6months
WALLERS
CONTROLS

36

37


AFTER FEED
AFTER ERUCTATION
38


39

MOTHER
NURSE
DOCTOR
40

The daily or weekly gain in weight varies even in a healthy baby (Fig. 18) and so does the amount of milk he takes each day.

Babies differ in the amount of milk they need. Fig. 19 shows a weight chart of a baby growing well on three and a quarter ounces of milk per pound body weight per day. Fig. 20 shows another baby who needed only one and three-quarters ounces per pound per day to grow just as fast. The baby needs (Fig. 21) whatever is " enough to keep him happy and growing." This is *usually* two and a half ounces per pound body weight per day. The amount taken at each feed varies too (Fig. 22) ; and of course it is not surprising that a baby will get hungry at varying intervals from his last feed (Fig. 23). It is reasonable to fit in with his desires. Going by the baby's internal clock will save him much crying and make him confident that the world is a good place. It will *not* spoil him.

In the puerperium, the early feeds are practice feeds for mother and baby (Fig. 24). The mother should know that her milk production will develop gradually (Fig. 25) otherwise she may worry.

Feeding the baby when he is hungry can be done from the start. At a month old most babies (Fig. 26) will choose six or seven rather than five feeds a day. Many babies will of course fit in with a four-hourly time table. This is convenient and may be tried but it should not be imposed. You will save much strain on the nerves of father and mother as well as baby if his preferences are respected.

Ante-natal care should involve seeing that the nipples are protractile (Fig. 27), and if they are not, glass nipple shields should be worn (Fig. 28) for several months. Attention should also be paid to the mother's diet and her brassière (Figs. 29 and 30).

It is surprising that even in the best series so many mothers fail to feed for six months (Fig. 31). Reasons have been put forward for this failure (Fig. 32). Dr. Waller, at the British Hospital for Mothers and Babies, Woolwich, suggested (Fig. 33) that improved results would follow the ante-natal attention to the nipples to see they are protractile, and massage and expression of colostrum to ensure that the ducts are patent. Secondly, he emphasised (Fig. 34) the importance of preventing persistent engorgement in the puerperium. Some mothers produce far more milk in the first week or so than their babies want. If this excess is removed after feeds, over-filling will be prevented. If there is severe engorgement with œdema of skin, œstrogens should be given to reduce the activity of the breast. In this way Dr. Waller doubled the number of mothers successfully breast feeding (Fig. 35).

In breast feeding the mother should sit comfortably slightly forward (Fig. 36) with the baby half erect. After feeds the swallowed air should be brought up (Figs. 37 and 38). The feeding times should be *restful interludes* (Fig. 39) in the mother's busy day.

In conclusion (Fig. 40), successful breast feeding will result from team work—not forgetting to take advice from the baby, as well as from the nurse and doctor.

These pictures are taken from a set of three film strips for medical students and doctors, containing 85 frames in all. The film strips were made for the Department of Child Health, Guy's Hospital Medical School, by the Department of Medical Illustration and Dr. Brian Stanford, and are available from Dr. Stanford at 54, Upper Montagu Street, W.1, for 25*s*. the set of three, with a booklet of teaching notes. The frames can conveniently be made into 2″ × 2″ lantern slides.

The Departments of Child Health and Medical Illustration have also prepared a set of 13 wall charts or posters designed for teaching nurses. These will shortly be available from the Central Council of Health Education, Tavistock House, Tavistock Square, W.C.1, both on loan and for sale.

CORRESPONDENCE

Letters to the Editor of the Gazette

Whooping Cough—Illustrations

SIR,—Why is it respectable to say :—

" Whooping cough is a terrible and killing disease ", and disreputable to make a picture of that same thought ?

If I ask clerks whether they approved of the Road Safety Campaign " Black Widow " poster, most of them say " yes ". I think it was silly propaganda. I prefer to be asked to be a courteous driver. Perhaps for different persons different propaganda is best. Perhaps sometimes teaching with a modicum of fear is memorable and so right, just as a touch of bitters may be right. This particular picture was made to *help* people learn about pertussis. Didn't Sam Weller speak of helping, " As the doctor sez to the mother that he was helping Nature, arter he'd bled the child to death." Think of some memorable medical phrases :—

" Captains of the men of Death." " Licks the joints and bites the heart."

May we not use these vivid phrases ? Is sardonic humour to be forbidden in talking to medical students ?

Yours, etc.,

RONALD MAC KEITH.

Matt Wells

SIR,—After twelve years as trainer to G.H.A.B.C., Matt Wells has retired. To the majority of Guy's men, both past and present, his name will bring back memories and I feel sure that those men would not like such a lovable character to leave without some token of their appreciation and esteem.

Matt was, of course, a professional boxer ; he won the Lightweight Championship of Great Britain in 1910 by defeating Freddie Welsh on points over twenty rounds. Prior to that, he was A.B.A. Champion (1904–1907) and Olympic Games representative. From 1921–1939 he was trainer to St. Bartholomew's Hospital and a few readers may remember the keen rivalry that existed (so I'm told) between Matt and Alf Hewitt who then trained the Guy's club. Guy's secured his services in 1939 and from that year until the present he was to be found on Tuesdays and Fridays " dropping his pearls " in the Pavy Gymnasium. Matt was at his best when seconding. After a completely demoralising first round one would return to one's corner to meet a rather irate Matt who would expostulate, " Why, boy—he's got nothing on you, now you listen to me—use your left, just your left, and soften him up. Keep your right until the last round." Sometimes it worked, sometimes it didn't. Whatever the outcome, as far as Matt was concerned, " My boy was the better man." Such was a measure of his complete devotion to his " boys ", the club, and Guy's.

It is intended to make a presentation to Matt Wells. Would those who wish to contribute please send their donations to :—

The Secretary,
Amateur Boxing Club,
Guy's Hospital, S.E.1.

Finally, may I be permitted, on behalf of all Guy's men to wish Matt Wells good luck, good health, and a happy retirement.

Yours, etc.,

T. MAGOR WINSTANLEY,
Hon. Sec., G.H.A.B.C.

REVIEW

PSYCHIATRY TODAY. By DAVID STAFFORD-CLARK. Penguin Books. *Price* 2*s.* 6*d.*

Laymen are naturally frightened of disease and its treatment. Such dread is often most marked when psychiatric disorder is under consideration. This reflects partly our relatively greater ignorance of matters mental, partly the disturbed emotions and judgment of psychiatric patients. The co-operation and trust of the public with regard to mental illness should improve with the publication of this book, which succeeds admirably in its purpose of presenting to the interested layman a summary of up to date knowledge of the problems of this group of diseases. The middle chapters describing disease entities, treatment and results are particularly suited to this task of allaying public suspicion and fear.

Throughout the book the author has made greater use of " psychoanalytic " terms and concepts than has been found necessary in current Textbooks of Medicine, e.g., " Price " and " Conybeare ". In this, mindful of his lay readers, he may well have been correct. Lay opinion must inevitably be somewhat behind medical however much we may strive to bring it up-to-date. The public today might well look askance at a work like this were it not to an extent based on such " old friends " as the " Ego " and the " Œdipus complex ", the " inferiority complex " and the " universal unconscious ". The author, in Chapter XI, has however, himself some fault to find with Freud, and must be warmly commended for suggesting, as early as in Chapter III, that all really interested people should read Freud's original writings (now easily available in translation) and decide for themselves how much of his admittedly controversial work can be accepted.

Medical readers may criticise other points in this book which, like the use of " psychoanalytic " terms, probably do no great harm to the lay reader, but rather present matters in a form more in keeping with the way in which other medical information is made available to him. The example of hysteria given on page 114 could, perhaps with advantage, have been less lurid, although a simpler and shorter one is in fact given two pages later and followed in the rest of the same paragraph by some remarks which medical men themselves would do well to digest. More justifiable criticism, in view of the public for whom the book is written, would be to draw attention to the absence of any reference in the description of electro-convulsive-therapy (pages 194–197) to transient memory loss, or to the fact that this form of treatment does not damage the brain if properly administered. Patients and their relatives are commonly anxious about both these points.

Throughout the book, but particularly in the later chapters, the place of psychiatry within the framework of our culture becomes gradually apparent. It is a place which respects our separate and equal need for religion, philosophy, law and art, as well as for such sciences as psychology, sociology and anthropology. In the author's own words : " The object . . . is not to hand over the world to psychiatrists ; that would indeed be a grotesque ambition ; it is rather to hand over the contributions of psychiatry to the world . . . "

The tables and figures quoted in Chapter VIII showing the results of treatment may be of interest to medical as much as to lay readers, especially the results of Professor Finesinger who followed up a series of cases treated by comparatively inexperienced students using, under his supervision, a brief method of psychotherapy which he had evolved.

In Chapter X Dr. Stafford-Clark draws attention to the size of the psychiatric problem in society even when confined to the really ill. In this, he endorses Dr. Curran's view, expressed in the Presidential Address to the Psychiatric Section of the Royal Society of Medicine last year, that " Owing to widespread incidence, the majority of psychiatric patients must necessarily be tackled by those who are not psychiatrists . . . "

That Dr. Stafford-Clark's book will be read there can be no doubt. Of the interested lay and medical readers I have asked, all have finished it within a few days without laying it unnecessarily aside. This is saying something for a book which, all have also admitted, required their undivided attention owing to the compression of the subject matter essential to its reasonably brief presentation.

J.P.C.

Further reviews are held over until our next issue.

SPORT

RUGBY FOOTBALL

Guy's *v.* Old Blues

At H.O.P. Result : Won 5—0

After a week of rain, Guy's met their first heavy pitch of the season. The Blues overran Guy's for the first ten minutes and the Hospital were hard put to keep their line intact. But suddenly the Guy's forwards woke up and began to get the ball from tight, line-out and loose and the backs used it confidently, indeed their handling of the wet, heavy ball was quite remarkable. With Guy's persistently on the offensive only stout tackling and the excellent covering of the Blues' forwards prevented a score. But such persistently good football was not to be denied its reward and eventually Keen cut through to send Osbourne away ; he ran to the full back, kicked ahead and was over for a try. Howells converted to put Guy's five points ahead.

In the second half the heavy pitch began to be a bit too much for both sides and the constant scrummaging took its toll of the out-weighted Guy's forwards. Consequently the game deteriorated to kick and rush although at times the Guy's backs revealed a little of their first half sparkle, and the Guy's forwards had some excellent foot-rushes. But as the game went on both packs tired rapidly and apart from a rousing attack in the last minutes Guy's seemed content to stay five points in the lead, an advantage they were able to maintain without any undue exertion.

Team : W. J. Howells ; K. P. Walker, D. Keen, G. Osbourne, G. Thomas ; J. Smith, R. Knight ; J. Kirkbride, D. Parry, D. K. Fairweather, H. Meredith, A Van den Berg ; D. P. Honey, C. W. Pook (Capt.), B. Cremin.

Guy's *v.* Birkenhead Park

At H.O.P. Result : Lost 0—3

For the first time this season Guy's won the toss and had the advantage of the slope in the first half. The Guy's forwards began in fine fettle and swept into the Park half in a most convincing style, but the backs found a hard cross-wind a little too much for accurate passing and the expected score did not come. The experienced Park forwards (six of them county players) quickly rallied and with excellent foot-rushes relieved the pressure, carrying the game into the Hospital half. The play then stuck there for although the Park backs were well held, the feeble kicking by the Hospital gave them the territorial advantage. The resulting stalemate was broken by the Hospital forwards playing the Park game and attacking by foot-rushes. Guy's remained in the Park 25 for the rest of the half mainly by the strenuous efforts of the forwards but were unable to score although once Fairweather was over the line only to loose possession of the ball.

The second half began with Guy's again trying to get their backs going and being stuck in their 25 as every mistake was pounced on by their energetic opponents. So Guy's were forced to close the game up and use the touch line to get into the Park 25. This they did with considerable success, but once there the forwards were unable to gain possession cleanly enough for the backs to get going although a drop at goal by Horley was only inches out. With neither pack being able to gain supremacy it seemed that the game must fizzle out in a draw, but in the closing minutes the Park forwards rushed the ball into our 25 and from the resulting loose maul Guy's were penalised. The kick struck an upright, bounced in, and the game was lost.

Although this game cannot be described as an entertaining spectacle, it was a magnificent battle between two fine packs and the Hospital was unlucky to lose it in such an unsatisfactory manner.

Team : W. J. Howells ; G. Thomas, R. Horley, G. Osbourne, J. Kington ; T. Smith, R. Knight ; D. K. Fairweather, D. Parry, J. Kirkbride, H. Meredith, A. Van den Berg, D. P. Honey, C. W. Pook (Capt.), B. Cremin.

ASSOCIATION FOOTBALL

A.F.A. Senior Cup

(2nd Preliminary Round)

Guy's *v.* Old Mercers

At H.O.P. Result : Won 5—0
1st November, 1952

After having beaten West Wickham 5–3 in the 1st preliminary round Guy's gained the right to appear in the 1st round proper by a convincing win over Old Mercers.

The match had only been in progress for five minutes when R. Lee suffered a strained ankle and was forced to spend the rest of the game hobbling along on the right wing. This misfortune robbed the Hospital of their normal cohesion and the reorganised side took some time to settle down and the interval arrived with no score. On the resumption, however, the Hospital quickly took the lead when G. Lee shot accurately just inside the upright. From a foul on the same player D. Lipington converted the penalty and with a two-goal lead the Hospital began to dominate matters to such an extent that three more goals were quickly added and the end came immediately after Cornhill had rattled the cross bar with a fast rising shot.

In the 1st round proper of the A.F.A. Senior Cup the Hospital have drawn Brentham, a Southern Amateur League Division II side. The match is to be played on the Brentham ground, Meadvale Road, Ealing. Kick off 2.30 p.m. on Saturday, 29th November.

Other Results of 1st November :—

S.A.L., Division III, Reserve Section

Alleyn Old Boys *v.* Guy's

Result : Lost 0—6

Friendly

Carshalton 4th XI *v.* Guy's

Result : Won 3—1

Southern Amateur League

Division III, Senior Section

Guy's 1st XI *v.* Alleyn Old Boys 1st XI

At H.O.P. Result : Draw 5—5
8th November, 1952

Guy's returned to their Southern Amateur League programme and although scoring five goals had to be content with a single point and this state of affairs can fairly be laid at the door of the defence who, except for the final 30 minutes, played with a lethargy that, happily, has not been apparent in previous games.

Leading 4–2 at half time, the match appeared to be safely in the pocket of the Hospital, but they were in for a rude shock because within fifteen minutes this healthy lead had vanished. Firstly the goalkeeper failed to gather a cross allowing the Alleyn Old Boys' centre forward,

a livewire of a leader, to head into the corner, and then D. Allen, the Hospital's left back was unable to get his arm out of the way of a centre and from the resultant kick the score was even.

At last the defence came to life and with quick tackling prevented an inspired forward line from taking advantage of their new-found spirit. A brilliant goal by the visiting centre forward, shot on the turn, was the sort that any defence would find impossible to prevent. However, the Hospital came back into the picture with a well taken goal to level matters for the last and final time. The whistle soon followed and a high-scoring but enjoyable match came to an end. The Hospital forward line did all that could be asked of it and it was heartening to see C. Maggs back in form leading the line with skill and endeavour. Over the defence it would be kinder to draw a discrete veil. Suffice it to say that D. Lipington got through a prodigious amount of work and more than shared the honours in an interesting tussle with a strongly built, fast-moving centre forward.

Other Results :

S.A.L., Division III, Reserve Section

Guy's 2nd XI *v.* Old Lyonians 2nd XI

Away. Result : Draw 3—3

Friendly

Guy's 3rd XI *v.* Distillers' Combined 2nd/3rd XI

Away. Result : Won 2—0

HOCKEY

Guy's *v.* Romford

Results :

1st XI Won 3—1
2nd XI Lost 2—4
3rd XI Lost 0—1

1st XI Report :

Guy's entertained Romford at H.O.P. and owing to a late start finished the match in poor light ; this, together with the dull colour of the balls and the uncertain ground surface, resulted in a game of mediocre standard.

But nevertheless Hall, making his debut at right half, and Partridge at inside right, showed promise and the defence was generally safe even if inclined to be slow in clearing.

The game started with Guy's taking the initiative and after some end to end play the Romford keeper considerately cleared the ball to Millar who scored. The Guy's goal was often in danger in the next few minutes and Romford was awarded a short corner which although well taken was fortunately just wide of the goal.

Following some rather indifferent play Romford equalised when their inside right scored following a free hit. Willis once more gave Guy's the lead when he followed up a pass from the right and pushed the ball past the keeper. Directly after the bully off the best bout of passing of the match was seen. Willis winning the bully, passed to Partridge who sent Cox away on the right wing ; Cox centred hard and Cautley running well on the left wing intercepted the pass and recentred to Millar who scored.

During the second half Guy's attacked repeatedly and were most unlucky not to score on several occasions.

Guy's showed that potentially they are a good team, but they will not meet with the success that these potentialities deserve until they learn to adapt their play according to the conditions of the ground.

Team : D. A. Montgomery ; K. B. Tyrer, H. M. Tuddenham ; J. J. Hall, D. Linahan, C. M. Robinson ; M. Cox, J. S. Partridge, M. Willis, J. I. Millar, J. M. Cautley.

Guy's 1st XI *v.* Crostyx 1st XI

Result : Won 3—1

Guy's owed their victory largely to their defence which repeatedly cleared the ball quickly and accurately. Worthy of mention in this respect was Eggington at right half and Elsdon-Dew at centre half. The former, playing in the senior team for the first time this season, started many useful attacking movements and gave the Crostyx left wing little chance to demonstrate his ability.

The forwards played well together and repeatedly pierced the opponent's defence only to appear shy when near the goal. A little more thrust inside the circle might easily have seen the score doubled.

The game began at a fast rate and within two minutes Guy's went ahead when, following some nice interpassing by Willis and Paul, Millar scored. The remainder of the first half saw spells during which each team dominated the play, but the finishing of both sides was poor and no goals were scored until just before half-time when, following a scrimmage in front of the goal, the Crostyx inside right equalised.

The first ten minutes of the second half saw Guy's attacking strongly and several times Partridge ran well on the left wing only to be dispossessed by the brawn of the defence and on one occasion this resulted in Guy's being awarded a penalty bully from which Millar scored. Guy's were now completely on top and maintained a steady pressure until the end. The Crostyx goal, however, proved elusive until just before time when Willis received a good pass from the right and ran through on his own to score.

Scorers : Millar 2 ; Willis 1.

Team : C. Bishop ; J. J. Hall, H. M. Tuddenham ; W. R. O. Eggington, R. W. Elsdon-Dew, R. Sandfield ; M. Cox, R. R. Paul, M. Willis, J. I. Millar, J. S. Partridge.

LADIES' HOCKEY

Guy's *v.* School of Pharmacy

At H.O.P. Result : Won 6—1

Wednesday, 29th October, 1952

Guy's *v.* St. Thomas's Hospital

Away. Result : Won 3—0

Saturday, 8th November, 1952

GUY'S HOSPITAL ATHLETIC CLUB

The Annual General Meeting of the Guy's Hospital Athletic Club was held on 30th October, 1952.

The following were elected officers of the Club :—

President :	MR. R. S. LAWRIE was re-elected unanimously.
Captain :	J. V. V. LEWIS.
Secretary :	I. D. HUDSON.
Sports Secretary :	B. ARMITAGE.

Mr. Lawrie congratulated the Club on its outstanding record in winning all 10 club

Sport (cont.)—

matches and being close runners up to London Hospital in the United Hospitals' Championships.

The Sports were held on Saturday, 24th May, and the standard of athletics was the highest since the sports were resumed in 1949. The prizes were very kindly presented by Mrs. Eckhoff who with Mr. Eckhoff has shown much interest in the Sports during the previous years.

LAWN TENNIS CLUB

At the Annual General Meeting held on 17th October, the following officers were elected for 1953 :—

President :	MR. GUY BLACKBURN.
Vice-President :	MR. J. B. BLAIKLEY.
Captain :	J. A. A. BULLARD.
Hon. Secretary :	J. D. CHARD.
Hon. Ladies' Secretary :	MISS B. JOHNSON.

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL

Consultant Radiologist

Amendment

In the notice published on November 1st inviting applications for the post of **Consultant Radiologist,** the words, " for attendance on 9 sessions a week " should read : *whole time or maximum part time.* We are asked to publish an apology for the error in the original notice.

PASS LIST

ROYAL COLLEGE OF PHYSICIANS OF LONDON

M.R.C.P.

October, 1952

P. D. Bryant
H. E. F. Davies
G. Hildick-Smith
H. R. C. Riches
S. M. Vine

CONJOINT BOARD

D.T.M. & H.

J. C. Crook

PAPERS BY GUY'S MEN

Brock, R. C. The Surgical and Pathological Anatomy of the Mitral Valve. *Brit. Heart J.*, 1952, **14,** 489.

Brown, D. E. Meredith. X-ray Therapy and Carcinoma of the Bronchus. An Analysis of the Effect on 218 Patients of Irradiation of the Primary Lesion. *Brit. J. Radiol.*, 1952, **25,** 472.

Campbell, Maurice, and Reynolds, Geoffrey. The Significance of the Direction of the P Wave in Dextrocardia and Isolated Lævocardia. *Brit. Heart J.*, 1952, **14,** 481.

Camps, Francis E. Common Household Poisons. *Med. Pr.*, 1952, **228,** 414.

Douthwaite, A. H. Diverticulosis and Diverticulitis. *Practitioner,* 1952, **169,** 505.

Joiner, C. L., MacLean, K. S., Pritchard, E. K., Anderson, Kevin, King, M. B., Collard, Patrick, and Knox, Robert. Isoniazid in Pulmonary Tuberculosis—Its use with and without Streptomycin. *Lancet,* 1952, ii, 843.

Goulding, Roy, and Robson, J. M. Isoniazid in the Control of Experimental Corneal Tuberculosis. *Lancet,* 1952, ii, 849.

Papers by Guy's Men (cont.)—

Knox, Robert, King, M. B., Woodroffe, R.C. In-vitro Action of Isoniazid on Mycobacterium Tuberculosis. *Lancet,* 1952, ii, 854.

Macintosh, R. R. Aspects of Nitrous Oxide. *Brit. dent. J.*, 1952, **93,** 234.

Poulton, E. Maclean. Relative Nocturnal Polyuria as a Factor in Enuresis. *Lancet,* 1952, ii, 906.

CHANGES OF ADDRESS

Edward C. Lewis, D.R.C.O.G., Birch Cottage, Horsmonden, Kent.

Ian J. MacQueen, M.B., B.S., 6, Highnam Crescent Road, Sheffield 10, Yorks.

P. A. Swift, L.D.S., R.C.S.(Eng.), 391, Wickham Road, Shirley, Croydon, Surrey. (Tel. Springpark 2040).

BIRTHS

BEARD.—On 23rd October, 1952, in Nuffield House, to Mary Davies (née Hockey), and Capt. Randolph G. Beard, R.A.M.C.—a son (Nicholas Randolph).

HODSON.—On 22nd October, 1952, at 1, Cedar Gardens, Sutton, to Marjorie (née Kingston), wife of R. F. Hodson, L.D.S., R.C.S.—a second son (David Michael).

JENKINS.—On 22nd October, 1952, at Cardiff, to Marjorie, wife of J. T. M. C. Jenkins, F.R.C.S.—a son (Thomas James Christopher).

MacQUEEN.—*On 20th September, 1952,* at Worthing Hospital, Sussex, to Dorothy (née Culver), wife of Ian J. MacQueen—a sister for Jason and Jane.

SAUNDERS.—On 24th October, 1952, to Nan, wife of Douglas Saunders—a son (Mark Sinclair).

WARREN.—On 6th November, 1952, at Bromley, Kent, to Constance Mary (née Archer), wife of John Lewis Warren, M.B., B.S.—a son (John Bowen).

DEATHS

CAMPBELL.—*On 19th October, 1952,* Nigel Stuart Campbell, L.D.S., R.C.S., aged 58 years—Sandgate Road, Folkestone, Kent.

JENKINS.—On 31st May, 1952, at Auckland, New Zealand, Charles Campbel Jenkins, L.R.C.P., L.R.C.S.(Ed.), formerly of Cardiff, Wales, and late of Mangere, New Zealand, aged 82.

THOMAS.—On 19th October, 1952, Frank Leslie Thomas, M.B., B.S., of The Square, Barnstaple, N. Devon, aged 74 years.

EDS. { E.E.D.T. / R.D.W.

GUY'S HOSPITAL GAZETTE

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PASSIM

Human life is always restless and knows not repose.

SUCH is the summing up, such the judgment on the experience of 86 years by BENEDETTO CROCE, the great Italian philosopher and apostle of spiritual freedom, who wrote those words not long before he died at Naples last week. The ingenuous and almost self-evident simplicity of such a statement would, if it came from the pen of a man before middle age, be dismissed as lacking any pretence to originality of thought. Coming as the mature appraisal of life by one who was lately described as "the defender of the spirit against materialism and of the individual's sanctity against authoritarianism" it immediately merits review.

Of the value of rest in the practice of medicine so much has been written and so many instructions given that it would be almost an impertinence to re-open, in a few lines, an argument which is no longer a controversial issue, for it seemed settled long ago. It would be surprising indeed did not the words "bed" and "rest" spring immediately to the mind in considering the treatment of any but the most trivial medical or surgical condition. Rest is mingled action and indolence. Rest is the essential spring-board from which every plunge into the unknown strait separating sickness from health is undertaken : it is the vital hand which grasps an exhausted swimmer as he struggles from the sea on to the shore beyond. No one doubts the value of physical rest as a measure of treatment. Less often is the disturbing effect of enforced and complete mental and physical inaction given due weight in planning a cure.

In many respects the workings of mind and body are mutually exclusive. Common observation indicates that complete muscular relaxation is often readily achieved when the mind is actively engaged : the converse is equally true. A few days' "rest in bed" can be tense agony to the physically disabled whose correspondence piles up unanswered in another room. It can mean rapid relaxation and cure at the price, maybe, of ink on the counterpane, and the litter of ravaged envelopes upon the floor. Again, who disputes the value of hobbies or sport as supreme therapeutic measures in easing intellectual strain ? Much of the profound impact of the character of a Winston Churchill is doubtless due to an easel set by the sea, and a palette daubed with the artist's nuances of colour.

Absolute rest, a phrase which slips readily from the tongue, might seldom achieve its purpose if interpreted literally. As a measure of treatment its success is due to the many small exceptions permitted by those who prescribe it : just a little music ; one page of the newspaper ; only two visitors ; a stroll round the garden—every one may find a legitimate place. Rest of such a type is a popular cure which, in the words of a contemporary poet, does "the right thing for the wrong reason", and is none the less satisfactory for that.

The new Guy's-Maudsley neuro-surgical unit was formally opened on November 20th by Lord Waverley. The buildings have been erected to the design of Mr. Rees Phillips, F.R.I.B.A., and adjoin the existing Maudsley Hospital at Denmark Hill. The unit is administered jointly, and about a quarter of the total cost of some £100,000 was provided by the endowments of Guy's and Bethlem Royal Hospitals, with which latter ancient foundation the Maudsley is joined.

Mr. Murray Falconer, who has been in charge of neuro-surgical cases while the work was temporarily carried on at the York Clinic, is the first director of the new unit. Miss M. Robinson is the superintendent of nursing. Our satisfaction at seeing the neuro-surgical unit at last worthily equipped and housed, is tempered with much regret because, inevitably, we cannot hope to see Mr. Falconer so often among us at Guy's where his skill and personality have been so greatly appreciated. We extend our warmest wishes to the unit in its new home.

Many of the minor difficulties which are encountered by general practitioners in making arrangements for their patients to attend Out-Patient clinics at Guy's have been overcome by the introduction of a printed card which is completed by both doctor and patient and posted by the patient to the appointment clerk here. All necessary preliminary details are thus readily recorded and time-consuming telephone calls are avoided. Supplies of these post cards are available, and practitioners who regularly send patients for examination at the hospital may obtain them on application to the Superintendent's Office, HOP 3500, Ext. 254.

Notices of a second Clubs' Union Ball are inserted in this issue of the *Gazette*. We hope that this attractive addition to the social calendar will be well supported so that last year's success may be repeated.

December **ACADEMIC**

		Exhibition. Surgical Department. "The Surgery of the Testicle."
1st	1.00.	Mr. Cann. Clinical Lecture. "Hoarseness."
	5.00.	Film. "Thyroidectomy." Clinical Theatre.
2nd	1.00.	Sir Heneage Ogilvie. Clinical Lecture. "Surgical Diagnostic Pitfalls in General Practice."
3rd	12.00.	Mr. R. E. Rix. Dental Clinical Lecture. "The Muscular Environment of the Incisors." Dental Theatre.
4th	1.00.	Mr. Lawrie. Clinical Lecture.
	5.00.	X-ray Meeting. Gordon Museum.
5th	1.00.	Dr. Mann. Clinical Lecture. "Five Unusual Cases of Gastro-Intestinal Disease."
	2.15	Clinico-Pathological Meeting. Gordon Museum.
	4.45.	Department of Child Health. Films :— "Oxyurosis", "Life Cycle of Diphyllobothrium Latum", "Tape Worm of the Cat", "Hook Worm". Pathology Classroom.
	5.00.	Dental Society. Film. "An Historic Approach to Restorative Dentistry." Dental Theatre. (Preceded by tea in Lower Spit at 4.45 p.m.)
9th	1.00.	Dr. Bishop. Clinical Lecture.
10th	4.45.	Science Club. Dr. R. T. Grant and Professor R. H. S. Thompson. "Sensitivity of Denervated Arteries." Staff Common Room. (Tea 4.30 p.m.)
11th	1.00.	Mr. Massie. Clinical Lecture. "Chronic Pancreatitis."
	5.00.	X-ray Meeting. Gordon Museum.
12th	2.15.	Combined Round. Preclinical classroom.
15th	12.00.	Mr. A. Bulleid. Dental Clinical Lecture. "Has Bacteriology helped the Elucidation of Dental Problems ?" Physiology Theatre.

Pharyngeal Diverticulum

By NILS L. ECKHOFF, M.S., F.R.C.S.

A Clinical Lecture (abridged) delivered in the Medical School, Guy's Hospital, on 16th October, 1952.

THERE are some who still call this condition an œsophageal pouch. It is now generally agreed that the diverticulum arises in the pharynx. To be precise it originates, and its neck is found to lie, between the oblique and the transverse fibres of the inferior constrictor of the pharynx. The transverse fibres form a distinct bundle, often called the crico-pharyngeus muscle. This is an important muscle, for it remains contracted during the second phase of deglutition until the pressure in the pharynx is sufficient to shoot the bolus onwards into the œsophagus. It is also most important in preventing air from entering the œsophagus during normal breathing.

Negus (1950) is of the opinion that some disorder of the swallowing mechanism probably precedes the development of a diverticulum. He finds evidence of inflammation on direct examination in some cases, superficial glossitis and anæmia in some, all signs which also occur in the Plummer Vinson syndrome. He states that patients with small diverticula may be relieved by attention to the anæmia and occasional œsophageal dilatation. Other patients who have had the diverticulum removed may still be troubled with dysphagia. Dunhill (1950) however, finds it difficult to believe that the development of the diverticulum is due to neuromuscular inco-ordination, for he finds the results of operation so satisfactory. On the other hand he describes a case in a child of two years which suggests a congenital origin, and mentions others in which there is a strong family history.

From the fact that the posterior wall of the pharynx is in close contact with the vertebral column it has been suggested that pressure from without may be a factor (Horowitz, 1949). Undue pressure from disease or injury of the vertebral column might weaken the musculature of the pharynx.

It is, however, generally believed that the diverticulum arises by pulsion through the weak spot between the fibres of the inferior constrictor mentioned above. The diverticulum usually originates in the midline posteriorly. Some have been described (Butlin, 1893, Chevalier Jackson, 1926) which originated posterolaterally *below* the cricopharyngeus. Shallow (1948) believes all but two of his 186 cases arose above the cricopharyngeus in the left lateral position. It is interesting to note that the majority present on the left. If Shallow's observations are correct this is easily explained. Otherwise it may be due to the slightly different positioning of the carotid vessels on the two sides.

The diverticulum is very thin and is composed of mucous membrane only, although there is an outer covering of loose areolar and fibrous tissue, with, in addition, some pharyngeal muscular fibres about the neck.

Symptoms

There are cases in which the diverticulum is *symptomless*. But as a general rule definite symptoms arise. This is due to the fact that with the passage of time the diverticulum becomes so situated that it is in direct line with the pharynx and the bulk of the meal goes straight into it. The œsophageal opening is small and slit-like and out of the direct line. The distended diverticulum in turn presses upon the œsophagus, to make matters worse. Hence marked *difficulty* in swallowing occurs.

Food then only reaches the œsophagus by overflow and the diverticulum may not empty itself completely (unless assisted) till the patient lies down at night when *regurgitation* into the mouth is to be expected. Some patients learn to empty the diverticulum fairly well by direct pressure in the neck. But decomposition of retained food is likely to occur, producing a marked *halitosis*. *Carcinoma* may develop in an untreated pouch. Whenever food particles regurgitate into the pharynx a most irritating *cough* is liable to occur. Some patients cannot, for this reason, lie down at night till the diverticulum is emptied.

Since but a small part of the food swallowed finds its way into the œsophagus a degree of real starvation occurs and *loss of weight* is pronounced. *Anæmia* is also to be expected, from the interference with gastric digestion. *Gurgling* noises are to be heard when the patient swallows, and when the diverticulum is pressed upon in the neck.

Treatment

When the diverticulum is small the disturbance of function may be but little and the symptoms slight. X-rays reveal a small bulge, with the food passing into the œsophagus. In such cases the patient may be rendered comfortable by occasional dilatation to ensure that there is no undue spasm of the cricopharyngeus muscle.

But as soon as X-rays reveal a measure of retention in the pouch surgical treatment will ultimately be required, for the pouch will get larger and larger and produce an increasing degree of œsophageal obstruction. The slit-like œsophageal opening is displaced anteriorly and a tube or œsophagoscope passes straight into the pouch. Œsophagoscopy must therefore be conducted very carefully, or rupture of the thin wall of the pouch may occur.

There has from time to time been considerable discussion concerning the best method by which to deal with the pouch. The œsophagus has a bad reputation for healing, and any leak at an œsophageal suture line is liable to produce fatal mediastinitis. The danger of mediastinitis has tended to dominate surgical thought in relation to pharyngeal diverticula.

Thus Hill (1926) described and practised the operation of *diverticulopexy*, in which the diverticulum was not removed, but dissected free and suspended upside down. It was thought that symptoms would then disappear. But further pouching tended to occur near the neck, with recurrence of symptoms. Carcinoma has also developed in such cases.

Another idea was to remove the diverticulum in two stages (Goldmann, 1908). At the first operation it was dissected out, and sutured to the skin of the neck, after the fundus had been cut off (*marsupialisation*). At the second operation the pouch was removed. It would seem apparent that the second stage would not be easy, with the danger of infection still present. Today most surgeons remove the pouch in one stage.

Some pre-operative preparation is required. A degree of semi-starvation is often present. In severe cases a gastrostomy may be required to overcome severe inanition. In all attention must be directed towards protein and vitamin deficiency, and this remedied seriatim.

An œsophagoscopy may well be indicated in the pre-operative period. Some believe that it should be performed again, at the commencement of the operation, the pouch cleaned out, and packed with ribbon gauze for easier identification. Others regard this step as unnecessary, and time consuming, and likely to cause unnecessary trauma to the mucous membrane. Most patients have learned the trick of emptying the pouch, and it is sufficient to wash it out with water several times for a day or two before the operation. (I am told by Dr. Kauntze that Judge Jeffreys had such a pouch, and carried a special silver spoon with which he used to empty it after his bigger dinners.)

Exposure of the pouch is not particularly difficult for surgeons accustomed to thyroid surgery. A vertical incision along the sternomastoid is often used, but a collar incision is excellent and leaves a better scar. Approach is obtained between the infrahyoid muscles and the sternomastoid. The lateral lobe of the thyroid gland is exposed, and rotated medially, with division of the middle thyroid vein and inferior thyroid artery (if required). The posterior belly of the omohyoid may have to be divided. It is as well to identify the recurrent laryngeal nerve—and avoid damaging this.

The pouch can now be dissected free, and the muscular fibres about the neck pushed back. Since the neck of the pouch is as wide as the pharynx it should not be closed by transfixion, but in a linear manner—with the suture line running transversely. It is important not to narrow the lumen of the pharynx, nor to leave excess which might form the starting point of another pouch. It is of assistance to have a medium size œsophageal tube passed a-

this stage, but it is remarkable how difficult it may be to persuade it to enter the œsophagus, even when guided through the neck wound.

When the mucous membrane is closed, the reflected muscle fibres are used to support the suture line. Some believe in tacking the suture line to the prevertebral fascia, but this would appear to be unnecessary. A rubber drain is usually inserted for a few days. The œsophageal tube may be retained for feeding purposes, but a tube alongside a suture line is never very desirable. An alternative is to support the patient with parenteral fluid for 48 hours, and then allow small quantities of fluid by the mouth.

Post-operative complications are not many. Recurrent laryngeal nerve paralysis can easily occur if care is not taken to identify the nerve. The most important complication from the patient's point of view is continued dysphagia, or recurrence of pouch formation from imperfect removal. Minor dysphagia may be relieved by dilatation but further pouch formation may require further surgery.

I have already mentioned the danger of mediastinitis. This used to be a serious complication in the early days of surgery of the pharyngeal pouch, and was responsible for the divising of different methods of dealing with the pouch, but it does not appear to have been a complication of any serious import in the series published by Lahey, Dunhill, Negus and others. Lahey has usually practised the two-stage operation and there has occasionally been a temporary fistula formation which has usually cleared up without incident. Negus does a one-stage operation but packs the wound and allows it to granulate, claiming a good scar. If drainage is instituted for a few days, this added precaution would seem unnecessary. Dunhill is well satisfied with a one-stage operation.

This lecture is prompted by the following case :—

Miss J. J., aged 49 years, was referred to me as a case of lymphœdema for which surgical treatment might be helpful. Certain cases of chronic lymphœdema can be improved by excision of greater or lesser amounts of skin and subcutaneous tissues of the limb.

A study of the photographs (Figures 1, 2, 3, 4) will reveal that the œdema is bilateral and symmetrical, and is mostly restricted to the lower two-thirds of the leg below the knee, and the foot. In lymphœdema due to lymphatic obstruction, the condition is seldom symmetrical, and although the œdema is often very severe in the lower part of the leg and foot, it usually extends up to and above the knee. As this case was therefore atypical further investigation was clearly indicated.

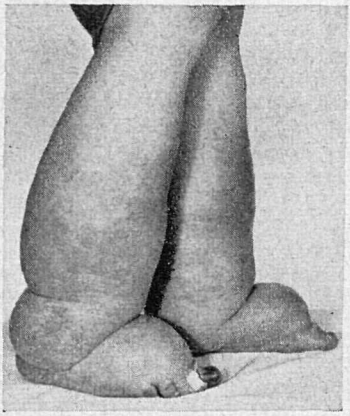


Figure 1

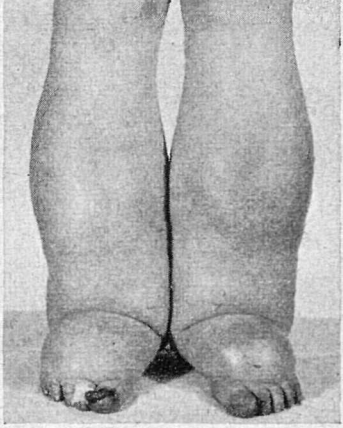


Figure 2

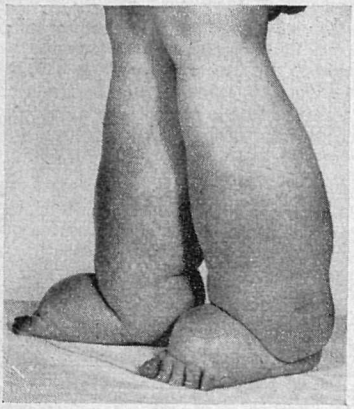


Figure 3

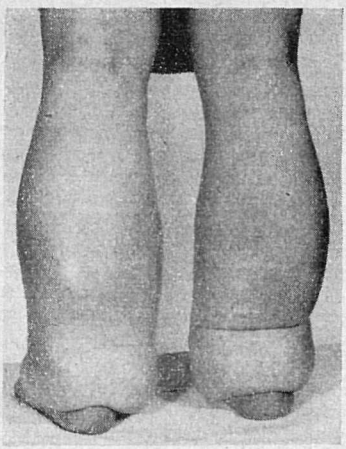


Figure 4

History :—

This patient was born in Quetta in India, but came to England at the age of three years. She visited Austria for a year and also British Columbia, but returned to England in 1926, and has remained here since. Swelling of the legs started in 1949, and has increased steadily.

Her general health had been good (accepted at normal rates for insurance). In the past few years there had been some palpitation, said to be due to hyperpiesia, and some frequency of micturition. Menopause in 1950.

Relevant Family History :—

Her mother had been having difficulty in swallowing for one year.

On Admission (East Grinstead), 20.8.52 :—

A thin, pale woman with a somewhat distended abdomen. The abdominal wall was so thin that peristalsis was visible, and veins were easily seen, but the direction of flow was not reversed. The colon was rather easily palpated, but the liver, spleen and kidneys were not palpable.

The heart and chest appeared to be normal.

Blood pressure was 190/120. Hæmoglobin was 94%.

Rectal examination revealed no abnormality.

The urine contained a trace of albumen and a light growth of *B. coli* on admission, but the albumen later disappeared.

Cardiological and gynæcological opinions were negative.

She weighed about 8 stone and was losing weight.

Further investigations :—

Urine — No albumen.

Hb. 71%. 11·1 gms. %.

R.B.C. 3·8 M. C.I. 0·93. M.C.D. 6·9.

W.B.C. 7,700. Polys. 60%. Eosinophils 2%. Lymph. 31%. Mono. 7%.

Red cells appear normal. Slight normocytic normochromic anæmia.

Plasma — Total Protein — 5·8 gms./100 ml.
Albumen — 3·4 gms./100 ml.
Globulin — 2·4 gms./100 ml.
A/G ratio — 1·4 : 1.

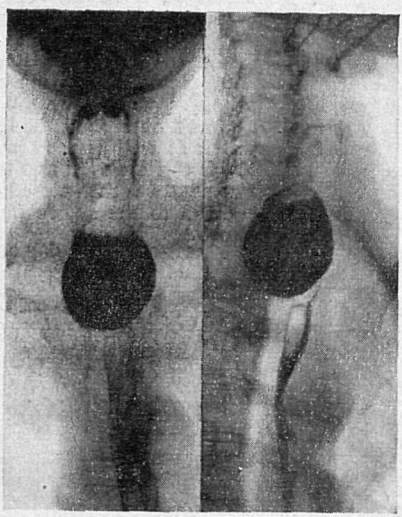


Figure 5

In view of the slight abdominal distension, and rather vague queasiness, barium enema and later barium meal examination were requested. The enema revealed no abnormality but the meal revealed an unsuspected pharyngeal pouch (Figure 5).

The patient now admitted dysphagia increasing for two to three years, with a sensation of food sticking in the throat, but no pain. For six to eight months she had noticed that food regurgitated into the mouth and nose on stooping. On swallowing a glass of water a bulge appeared in the lower part of the neck, slightly more on the *right* than the left. Pressure on either side of the trachea produced a squelching sound. There was no fœtor.

The swelling of the legs rapidly improved whilst in bed in hospital.

Transferred to Guy's Hospital, 17.9.52.

Condition of legs revealed in photographs (Figures 6, 7).

Figure 6

Figure 7

In view of these near normal findings, no further investigations were done.

Œsophagoscopy revealed no abnormality other than the pouch. It was extremely difficult to find the œsophageal orifice.

A gland was removed from the groin which showed non-specific chronic inflammatory hyperplasia.

The patient was instructed to wash out the pouch for a few days, by drinking water, and then pressing on the lower neck to empty the pouch.

Pre-operative intubation was not possible, for a Ryle's tube passed through the nose coiled up in the pouch.

Operation, 26.9.52.

A collar line incision was marked out with Bonney's blue and the right-hand portion made. Investing fascia was divided, the sternomastoid retracted medially. The carotid sheath was dissected out and retracted laterally and the pouch exposed after division of the omohyoid muscle and the middle thyroid vein. An œsophageal tube was passed with much difficulty. In order to do this the incision was carried on around the left side of the neck and the pouch exposed on the left as well as the right. The tube having been passed, the pharyngeal pouch was removed and the stump inverted with a double row of sutures. The neck was then closed in layers, after placing a corrugated rubber drain down to the suture line.

The indwelling tube was removed on the third post-operative day and the patient left hospital on the seventh post-operative day.

(Figures 1, 2, 3, 4 by kind permission of the Department of Photography, The Queen Victoria Hospital, East Grinstead. Figures 5, 6, 7 from the Department of Photography, Guy's Hospital.)

REFERENCES

BUTLIN, H. T., *Med. Chir. Trans.* (1893), **76**, 269.

DUNHILL, T., *Brit. J. Surg.* (1950), **37**, 404.

HILL, W., *Brit. Med. J.* (1926), **2**, 1163.

HOROWITZ, S., *J. Laryng. Otol.* (1949), **63**, 600.

JACKSON, CHEVALIER, *Ann. Surg.* (1926), **83**, 1.

NEGUS, V. E., *Brit. J. Surg.* (1950), **38**, 129.

SHALLOW, T. A., and CLERF, L. H., *S. G. & O.* (1948), **86**, 317.

MAINLY INSTRUCTIVE

" Gadzooks and by St. Jeremy ", muttered the colonel, nervously disentangling the handle of his umbrella from his moustache as he twisted around on his prize green stallion. Of course, green wasn't its natural complexion but it had already had its hide sold to a Russian Billiard Table Manufactory. Purely incidentally these are supplied exclusively for the use of the stewards of the " Society for the Prevention of Mental Cruelty to Pachyderms " of commissariat Mongolia. The tables are equipped with 519* spheroid balls, on which are painted miniatures of all the patron Gods, Demons, Poltergeists and Anthropologists. According to their arrangement is judged the precise meridianal location of the humpersquallaby, by no means inaccurately.

The above is an example of a new novel form I have evolved. It is designed specifically for those people who, whilst entertaining a demoniacal lust for knowledge and learning, have not the slightest inclination to gather it for themselves. Thus I plan to supply for them a suitable referendum of a general compass as light reading, for conversational use in pseudo-dillettante circles and double or quits cash quizzes. This will be a useful alternative to the methods formerly employed, which have either entailed much travelling amongst the universities of the world, or the perusal of Old Moore's Almanac.

*AUTHOR'S NOTE. *I have found this number open to question. The discrepancy in the estimates is probably due to fluctuations in the local chief industry, i.e., high-class ironmongery. The balls are constructed of a delicate network of iron fibres over which is coated a sprinkling of cheese rind and confetti. This increases the resonance, at the same time enhancing their appearance and relative durability.* B.P.G.

CORRESPONDENCE

LETTERS TO THE EDITOR OF THE GAZETTE

The Landon Children's Tea Party

SIR,—The Landon Children's Tea Party will be held in the Out-Patient Department this year at 3.30 p.m. on Wednesday, December 24th, at which 200 children will be entertained.

In the past it has been customary to appeal to business firms in the neighbourhood for subscriptions towards the cost of this annual event. Under the present regime hospitals are not allowed to appeal for funds, but there are many members of the Hospital Staff who have helped this cause in the past, and I have no doubt would like to continue to do so.

This tea party has been an annual event since 1897, and any member of the Staff will be welcome who cares to come and see the entertainment in progress.

Yours, etc.,

W. D. DOHERTY,

Superintendent.

Pertussis

SIR,—I believe I knew Dr. Mac Keith before anyone at Guy's except Dr. Cameron. We went through an experience together from which I found his intensity of purpose, his enthusiasm, and his courage. It is because of that that I am constrained to oppose him when I believe him to be wrong.

I think his error may be due to two things, giving way to using words too strong for his purpose, and inexperience. It is *not* "respectable" to say "Whooping Cough is a terrible and killing disease" because it is not true. Nor does his picture depict that thought. It says, "I, hideous death, am going to drag all your family down to the underworld."

A disease may be called "killing" when it is the natural process of the disease to end in death, and when recovery is something in the nature of a miracle. It may be called "terrible" when it sweeps large numbers of a population off the face of the earth, or when there is some dramatic moment before the end comes. Plague and typhus were terrible before we knew how they were spread. Influenza may become so, as it did in 1918. It may again, because though we now know something about the causative organisms we still know nothing as to why it may suddenly become rampant.

Pneumonic plague is a killing disease. I have never seen it but I thought I had in 1918. In Cairo the influenza came upon us like the pestilence that walketh in darkness, for we had heard nothing there of the epidemic that was already raging in England, and our men caught it from the enemy as they drove him up the coast of Palestine and Syria. And one night I feared it might be pneumonic plague, and went and spoke to my O.C. of the medical division, Major Ritchie, a great clinician who later became Professor of Medicine at Edinburgh University. He took me by the arm and said, "No! I thought so myself this morning, and went over to the quarters and read it up in Manson, and it isn't." And the next day the patients were like the two women grinding at the mill, one had been taken and the other left.

And then in all these dreary years between the wars I was never allowed to tell of this experience, because I was labelled specialist, until one day lunching at a club with an open-minded member of our profession a quiet man opposite joined in and said, "I hear you are talking about the resemblance between the 1918 influenza and pneumonic plague. I can bear you out because though not a medical man I have seen both." He had been a magistrate in India, and when there was illness in a house and the occupants refused to let the medical authorities enter it, they had to go to the magistrate who then went with them and he could compel the house-holders to let them in. And so in the early years of the century he had seen quite a number of cases of pneumonic

plague ; and when the influenza got to India his duties again compelled him to see bad cases, and he had recognized how like they were to the other ; but until he heard us talking he had found no medical man who would listen to him.

It was because of this that I held out that certain cases of diarrhœa and vomiting coming into the Fever Hospitals were influenza for they had the same characteristics of a deadly disease, killing about 50 per cent., and you could not tell which would do which—get well or die. The patient that you thought would recover was like to die, and that for whom you had nearly given up all hope would turn the corner and get well.

This, I think, is the characteristic of deadly influenza and yet you would not call influenza a " terrible and killing " disease when almost every winter there are many people who you are confident have had it without ever knowing they had been ill.

Rabies is another " terrible and killing " disease. No ! I have never seen it, but I have had the duty of inspecting the documents of dogs being imported into another island which, like Britain, is free from it, and I have been ashamed of the way in which laymen have tried to get round the isolation regulations. We need to keep the words " terrible and killing " for a disease such as this in order to persuade those who want to smuggle in tiny dogs that it is potential manslaughter to do so. I can also remember the streets of London before Mr. Walker Long's muzzling order was introduced, perhaps the finest piece of successful preventive medicine there ever has been, and the fear that mothers and nurses in charge of children had whenever two dogs fought, in case one of them might be mad. And ten years after it was all over a child was admitted in Lydia under Mr. Symonds (Sir Charters) with tuberculosis of the skin of the cheek which had been implanted in a dog-bite by an heroic woman who had at once sucked the wound to remove the poison and evidently had had tubercle bacilli in her sputum.

Tetanus is another, both terrible and killing when you have no serum, and, even when you have, once the disease has got a grip. I took over the Armenian Archbishop's house full of such cases when we entered Jerusalem. The enemy had had no serum. We had, and pumped it into them, but I doubt whether we saved a single life thereby. If anyone wants to see a terrible picture let him look at that of Opisthotonus made by Sir Charles Bell at the battle of Corunna and published in his work on the *Anatomy of Expression* (page 160).

Then there is diphtheria, a killing disease before there was serum. Mr. Symonds who was then the surgeon to the throat department told me how terrible was the Dip. Room—by the steps down into the Park—and how hardly any of the tracheotomy cases recovered, and what a change there was at once when the serum came in although they were only given doses of about 300 units. The room was bad enough ten years later. And that diphtheria was " terrible " may be learned from the following. In a certain road were three families each of one boy and four girls, and in one of them the boy developed diphtheria, presumably laryngeal, and struggling for breath, insisted in getting out of bed and fell dead upon the floor at his mother's feet. Into the face of one of the other mothers, then a woman about 40, there came an expression of deadly fear every time diphtheria was mentioned in her presence until she died at the age of 90.

I could go on telling of septic scarlet which still existed when I first joined the Fever Service, but have given examples enough of " terrible and killing " disease. In whoopers there is none of this. It is one of Dr. R. E. Smith's compulsory infections ; but how many of all the day-time population at Guy's looks back to it with fear. I had it at 16 and spent a term walking around the wintry fields of Berkshire in isolation. I was lonely of course, but I think I learnt then that the English scene could be as beautiful in winter as in spring with its browns instead of greens. How many of these that had it before they can remember have seen a terror come into their mother's face when it is mentioned ? Distressing it is for all patients, parents, and nurses. Trying to those who must look after them ; but " terrible " no, except by the modern misuse of the term. It has a mortality—Yes !—but almost entirely among

that small group of the population to which the pædiatrician limits most of his activities to save lives. I do not believe that it helps people to be taught by misrepresentation. It would do much more good to drum into them that the most serious cases are those in which the children have both measles and whoopers at the same time. Yes ! I think " sardonic " humour is " forbidden " in talking to medical students as much, or even more, than the " doubtful " stories of an earlier day. They at least were true.

Yours, etc.,

T. B. LAYTON.

SIR,—Dr. Mac Keith's reply to my letter on the subject of pertussis in your issue of October 18th is very interesting, and his remarks appreciated.

If the chief mortality occurs in children under one year of age, as he says, it is more readily accounted for, since older children are much easier patients to handle. Even so it seems very high.

He refers to the difficulty of early diagnosis. I fully agree as not only does the whoop not appear until the child has been coughing for some time, but one can have children in a family or school who do not whoop while others do, and one has to accept them as cases of whooping cough *sine* whoop as often as not. Such confirmatory signs as epistaxis and the characteristic " whooping-cough facies " are also later signs.

As for treatment, I used a vaccine for the first time in the case of my own son who had whooping cough at the age of 4. He had a fairly severe attack, and I gave him the vaccine prepared by the South African Institute for Medical Research in Johannesburg in increasing doses every four or five days. The number and severity of paroxysms were noticeably reduced after each injection and then gradually increased again, which I took as the indication for the next dose. The net result was much fewer coughing attacks, much less vomiting, better retention of food and less exhaustion. I have used vaccine as a method of treatment in other cases since with the same satisfactory results. Incidentally parents or nurses should be instructed to give a child small liquid feeds at frequent intervals, preferably *after* a coughing bout, rather than the usual three meals a day.

In South Africa and Kenya I always kept children out of doors in the sun for the greater part of the day if possible, as sunlight has a beneficial effect, and I seem to recall that artificial sunlight has been used as an auxiliary to treatment in less sunny climates than those mentioned.

Regarding drugs, I always make belladonna my stand-by, and I think it takes a lot of beating. But some years ago, in an article in the *Lancet* of December 14th 1929, Dr. Essex Wynter, writing about the uses of Chloretone, concludes his article as follows :— " Having now strained credulity to the utmost, I will conclude by making the most outrageous statement of all—namely, that this dilute solution of chloretone, in doses of one grain, will cure whooping cough in a week. I was recently consulted about a little girl of 3, causing a great deal of anxiety to her parents owing to vomiting, sleeplessness and rapid wasting, resulting from the frequent violent paroxysms. One grain doses of chloretone were given four times a day with immediate relief. After two days it was given only morning and night, and after the fifth day discontinued altogether, as there was no further need, and there was no recurrence."

According to the *Lancet* of July 26th 1952, the incidence figures for England and Wales, given by the Ministry of Health for the month of June 1950, were :—diphtheria 104, measles 26,791, pertussis 9,609. In other words the incidence of measles was nearly three times that of pertussis, yet the pertussis death rate is nearly twice that of measles.

Yours, etc.,

G. DUNDERDALE,

P.O. Box 642,
Pietermaritzburg,
Natal, South Africa.

The New Guy's

SIR,—Recently I had the opportunity of seeing the model and some typical floor plans of the proposed new building for Guy's Hospital. I am not in a position to make a detailed criticism of the plan, but I am disappointed that it shows few signs of the new ideas in hospital planning which have been mooted lately : by no means everybody is convinced that the large open ward, with a string of ancillary rooms at one end, is the best arrangement for housing sick people.

The building is to be star-shaped ; with three wings radiating from a central core, and each wing branching again. This results in courts five-sixths enclosed, and as the wings are shown eight and nine storeys high, extremely little—if any—direct sunlight will ever reach the lowest windows, and the gloom of those courts which face north can be imagined. Noise, too, will be confined and magnified in these chasms of bricks and mortar, and though the main wards do not face onto these courts, there are others besides patients who prefer—and need—relative quiet and light to racket and gloom. I realize perfectly that the site is confined and the requirements of the hospital large, but I find it hard to believe that an answer both pleasant and more efficient could not have been found.

Finally, it is profoundly disappointing that, in the matter of appearance, this building, which will take so long to erect and which will represent Guy's Hospital to future generations, should be dressed in a style which was in vogue among lesser architects for a short time about twenty years ago. It is already completely out-dated. How sad that a great hospital, so very much in the van in matters medical and surgical, should allow itself to be so lamentably in the rearguard architectually.

Yours, etc.,

A.R.I.B.A.

Physical Society—Combined Meeting with St. Thomas's Hospital

SIR,—I feel quite sure that if I said that the Combined Meeting of the Pupils' Physical Society held at Guy's on November 13th was not a most instructive and enjoyable occasion it would arouse much justified adverse comment. I am not so sure that there would be so many dissentient voices if I said that the arrangements at the outset of this meeting left something to be desired. We were entertaining fellow students from St. Thomas's Hospital who knew nothing of the layout of Guy's. Could not the Porters have been informed of the whereabouts of this meeting or some simple notices erected so that our visitors were not left to roam aimlessly about the Park ?

Also, after a somewhat garbled account of the arrangements for the evening, we were invited to help ourselves from seven piles of leaflets containing information about the patients we were to see. Was it necessary that these should have been produced in so indifferent a manner ? It gave an air of sloppiness to the commencement of the meeting and also caused no little confusion in the ranks of our visitors and of Guy's men as to the location of the patients.

It seemed a pity that these individually trivial points should be allowed to mar such an enjoyable occasion when so little extra effort was needed to remedy them.

Yours, etc.,

PHILIP R. LYON.

Guy's versus Bedford, the recent Rugby Match

SIR,—Although the score was Bedford 16 points to Guy's nil, the score does not always proclaim the true nature of the game. Guy's put up a good game as always, but Bedford is one of the country's crack teams.

The Bedford fly-half, the Vice-Captain, alluded to in the report in the *Guy's Hospital Gazette*, is a potential candidate for his overdue International

Cap, and one of our team who plays Rugby psychologically as well as physically. The *Guy's Hospital Gazette* states : " . . . . but . . . . their fly-half made a brilliant opening, and their international centres completed the movement to put Guy's five points down . . . . "

Guy's need not feel any discouragement, and surely enjoyed the game, as always, with Bedford.

I personally look forward annually to this fixture, and am chaffed by my fellow fans in the grand stand at Bedford, as a supporter of Guy's on this *one occasion* in the season, when I turn up wearing my Guy's tie and scarf.

Yours, etc.,

N. S. HEEGAARD WARNER,
Vice-President, Bedford Rugby Union Football Club.

Ross-on-Wye Castle

SIR,—I wonder if it is generally known among Guy's people that we own a ruined castle at Ross-on-Wye ?

When touring in that district this summer, we found this information in the Guide Book. The castle, known as Wilton Castle, dates from the early 13th century and is now nothing but a ruin, overgrown with ivy and surrounded by barbed wire with no obvious entrance.

I endeavoured to make my way in to the grounds, but without success. I quote from the Guide Book :—

> " The ruined castle and adjoined lands were acquired by Thomas Guy, who left the property to the London hospital founded by him and bearing his name, and that admirable charity still has possession."

Yours, etc.,

5, Bracknell Gardens, N.W.3. K. A. SHACKLE.

Occupational Therapy—Sale of Patients' work.

SIR,—May I, through the medium of these pages, express our thanks to all those members of the staff and students who supported our recent Sale of Work ?

An Occupational Therapy Department is always faced with the problem of the disposal of patients' work. While most patients buy what they make, there are exceptions, and in any case, long term cases cannot buy everything.

I would therefore remind readers that a small stock of articles suitable for Christmas gifts, etc., is usually available in the Occupational Therapy Department. These have to be sold in order to cover the initial outlay on materials. All are welcome to buy.

Yours, etc.,

MARGARET W. FARMER,
Head Occupational Therapist.

Music Club Concert

SIR,—May I use your columns to give details of a Concert to be given by the Guy's Hospital Music Club on Thursday, 11th December, at 7.30 p.m., in the Physiology Theatre. The works to be performed are :—

Dido and Aeneas	*Purcell*
Brandenburg Concerto No. 4 in G	*Bach*
Christ's Birthday	*Bruce Montgomery*

The Music Club extends a cordial invitation to all members and friends of the Hospital. There is no charge for admission, but a collection will be taken during the interval to defray expenses. Tickets may be reserved on application to the Secretary.

Yours, etc.,

BERNARD H. J. PRITCHARD,
Hon. Secretary.

REVIEWS

The Principles and Practice of Medicine : A Textbook for Students and Doctors. By L. S. P. DAVIDSON and the Staff of the Department of Medicine and Associated Clinical Units. E. and S. Livingstone, Ltd. 919 pp. *Price* 32*s.* 6*d.*

It is still customary in the Scottish medical schools for a course of 80–100 systematic lectures in Medicine to be given to students commencing their clinical studies. This book is intended to replace the cyclostyled notes which Professor Davidson has issued in the past to those attending his lectures in Edinburgh.

It is therefore an elementary treatise on the principles and practice of medicine rather than a comprehensive textbook. Thus, only brief descriptions of the commoner diseases are given and there are no sections on the specialities such as infectious diseases, pædiatrics, psychiatry or dermatology. A good balance has been kept and no space is wasted on rarities.

Much of the material is presented in the form of notes, but on the whole the book is very well written and is easy to read. One section, however, appears to have escaped the Editor's vigilance and is disfigured by such loose writing as the following :—

> " The seeds of anxiety may have been sown by mishandled illness with unwarranted physical restriction after illness, for example, a mild attack of rheumatic fever."

The book is excellent for its purpose and will no doubt command a steady sale in Edinburgh. Elsewhere its appeal will be limited. Too large and expensive to compete with the introductory works on clinical methods, it cannot replace the standard textbooks. Some may find it helpful for rapid revision before the finals. J.C.H.

Practical Procedures. Edited by SIR HENEAGE OGILVIE and W. A. R. THOMSON. 2nd Edition. Eyre & Spottiswoode. *Price* 25*s.*

Comparisons are odious, but a book of this name must join issue with " Pye's Surgical Handicraft," which for many years has stamped a lonely field ; in the issue " Practical Procedures " is mainly the loser.

The terms of reference are too wide—" to allow practitioners or hospital residents to carry them out or to know what is required if the procedure is to be done by someone else "—may be read to include anything from flensing to gastrectomy, or from phlebotomy to flame photometry.

There are excellent chapters on Plaster Technique, Circumcision, Blood Counts and Transfusion and the Minor Surgery of the Skin amongst others, but information is generally patchy in quality and quantity. The reader will discover how to enucleate an eye, but not the use of fluorescein ; he will find how to inject proctocaine under an anal fissure, but in the chapter on Sclerosant Solutions, he will find out what Ghost formation is and how to do an endometrial biopsy, but not how to deal with a paronychia. He will learn how to treat paralytic ileus by gastric lavage through a three-way syringe, and how to interpret an insulin test meal, but not how to carry a sterile syringe, how to collect blood for a sugar estimation, or when to stop looking for a fish-bone stuck in the throat. P.A.L.R.

After Treatment. By H. J. B. ATKINS. 4th Edition. Blackwell Scientific Publications. *Price* 30*s.*

In the 4th edition of this well established book the author has incorporated an account of the many advances in therapeutics since the previous edition appeared in 1946. As a guide to those entrusted with the care of surgical cases after operation it continues to be a valuable and provocative work. Mr. Atkins is careful to state where certain of the views expressed are his own, and where they are at variance with those of other authorities; for example, in the chapter on " Fractures " the modest manner of his disagreement provokes the reader to investigate further—a salutory result which the *ex cathedra* style of

some authors never succeeds in achieving. Thus while acquiring essential information in a most readable manner, the average G.P., House Officer, Ward Sister or Dresser (for it is to them that this work is mainly directed) lays down the book with no fear of complacency, or idea that " we know it all now "—indeed, such a reaction would be the last thing the author would desire.

Of all the excellent chapters in this book that on " Operation Wounds, Scars and Burns " seems the least happily undertaken, for in the section dealing with " Antibiotics " certain anomalies and small errors detract from material which the preface describes as " thoroughly revised ". For example, there seems a certain illogicality about : " For practical purposes harmful reactions to penicillin can be said not to exist " (p. 32) and, in the section on Streptomycin (p. 34) : " . . . the possibility that a pyrexial reaction is being maintained by the drug and not by the disease for which it is being prescribed must, *as in the case of penicillin*, be borne in mind." (reviewer's italics.) Further, " *Glostridium Welchii* " and " *Trepanomum pallidum* " (*sic*) occur within a few lines of each other on p. 32. Another minor mistake which should not persist in a 4th edition is the spelling " distention " in the diagram on p. 186 compared with the more correct " distension " on p. 115 and elsewhere.

Such criticisms, however, do not detract from the essentially practical nature of the book from the junior practitioner's point of view and the appendix on " Appearing in Court " is a notable guide to an experience which is often " an alarming one for the doctor ". It is a valuable volume which should be handy on the shelves of all those who have the care of surgical cases.

E.E.D.T.

The Foot. By NORMAN C. LAKE. 4th Edition. Balliere, Tindall & Cox. *Price 25s.*

This is the fourth edition of Mr. Lake's well known work on the foot which is intended, as stated by the author in a preface to the first edition, " to deal with those conditions which come within the purview of the practitioner and general surgeon, omitting major orthopædic procedures, and to provide a volume which will be of value to the chiropodist, physiotherapist and other medical auxilliaries . . . "

The introductory chapters describe the evolution and development of the foot, and discuss at length the theories concerned with the development and maintenance of the long arch. A chapter on anatomy is followed by an interesting account of footwear, both historical and modern, and by a full description of the clinical examination of the foot. The various injuries are briefly considered, but the recommendations on treatment are hardly sufficient to be of any real practical value. Excision of the astragalus, mentioned as a possible form of treatment for fractures and dislocations of this bone, is an operation which is no longer regarded with favour. The various operative procedures for hallux valgus are fully described, but it is not made clear that the common associated deformity of the second toe is essentially a subluxation or dislocation at the metatarso-phalangeal joint. The place for amputation of the second toe is not considered, although in many elderly patients with hallux valgus this minor procedure gives great relief. In the chapters on claw foot and pes cavus the omission of any reference to the procedures described by Lambrinudi (arthrodesis of the toes) and Girdlestone (transplantation of the long flexors into the extensors) is surprising.

In succeeding chapters diverse conditions such as chilblains, vaso-spastic abnormalities, trench foot, frostbite, new growth, etc., are dealt with, and contain a great deal of valuable information.

This book, which has an established place in the literature of the foot, will prove of great value to those to whom it is addressed. On orthopædic problems the orthopædist may find grounds for criticism, but orthopædics is a controversial subject.

J.S.B.

A Textbook of Gynæcological Surgery. By VICTOR BONNEY. 6th Edition. Cassell. *Price* 60*s.*

Mr. Bonney's superb skill in surgery was the delight of his colleagues and assistants. Those whom he trained were fortunate indeed. He attained unsurpassed excellence of operative technique, which lives vividly in the practice of Bonney-trained men and in this book.

The new edition is brought up to date by descriptions of the radical operations for carcinoma of the vulva and of pelvic exenteration.

Today most surgeons perform total hysterectomy almost to the exclusion of the subtotal operation, but Mr. Bonney has a place for subtotal hysterectomy and thoughtfully lists some of its advantages. In his description of vaginal hysterectomy he does not describe peritoneal closure, a modern development conferring great advantage and making it a most useful safe operation.

In minor criticism it must be said that he mentions, but advises inadequately on antibiotics. Likewise infusion and transfusion therapy is better described in those books on after-care and handicraft which are standard guidance for dressers and house officers.

It is a monumental work, full of the courageous philosophy of a very great surgeon.

Will the day's journey take the whole long day ?
From morn to night, my friend. E.A.W.

Old Instruments used for Extracting Teeth. By SIR FRANK COLYER. Staples Press. *Price* 42*s.*

Sir Frank Colyer has devoted a lifetime to the magnificent collection of dental interest which was housed in the museum of the Royal College of Surgeons. Among them is a unique collection of the instruments described in this book. As a whole it is a worthy production but there are some blemishes. The section on Pelicans begins on p. 10, not, as stated on the contents page, on p. 15 ; in the same way " Modified Forms of the Key " begins on p. 126, not on p. 139. " Combined Instruments " on the contents page becomes " Compound Instruments " on p. 217, but no doubt these are slips of the proof readers. The evolution of dental forceps is admirably described. We wonder whether obstetric forceps were suggested by their dental counterparts. The pelican, keys, forceps and elevators, modified and described by Fox and by Bell in this hospital are illustrated and explained. Every surgeon, whatever be his branch of practice, must be a skilled craftsman. Therefore, for all surgeons this account of the thought and care devoted by successive generations of practitioners to the production of instruments which will yield the maximum efficiency for the purpose for which they are designed, is a stimulating study. Sir Frank Colyer deserves much praise for so worthy an account of this subject. F.N.D.

Textbook of Functional Jaw Orthopædics. By KARL HAUPL, WILLIAM J. GROSSMAN and PATRICK CLARKSON. Henry Kimpton Press. *Price* 60*s.*

This is a generously illustrated textbook of orthodontics whose main burden is the rationale, the claims and the technique of what the authors call functional jaw orthopædics. Orthodontic therapy of this genre originated in Norway where Häupl worked with Andresen, and Grossman later introduced it to these isles. There is no doubt of its great worth, and it is fortunate that the authors have collaborated to produce a full scale exposition of their work. The book is extended to cover those aspects of dental anatomy and physiology which have special reference to the development of the masticatory apparatus. Types of dysgnathias are illustrated and classified, and there are chapters on ætiology and aids to diagnosis. A description of appliances of the fixed variety

is purposely excluded but a range of plates is given. The construction and handling of functional appliances are well dealt with, and tissue changes subsequent to treatment are described.

It is refreshingly removed from the mechanistic approach to orthodontics which has emanated from the States in the past. A more critical attitude would, however, have increased the book's value to the student. Claims are not always supported by evidence. Can we believe that " masticatory muscular activity may be regarded as the tissue-*forming* factor in the organ of mastication" ? Is mouth breathing *per se* really responsible for dental deformities ? Are no reservations necessary to the practice of lateral expansion of the lower dental arch ? Does radiological evidence support the view that " articular transformation " is brought about during the treatment of mal-related dental arches ? And there are others.

Mr. Patrick Clarkson contributes a concise and well reasoned section on the aid that modern maxillo-facial surgery provides for mal-occlusions and disfigurements, including clefts, which are too gross for successful treatment by orthodontic methods alone. Operative techniques and after care are described and there are illustrations of successfully treated cases. The impetus provided by the last war to this type of surgery has led to rapid advances of which the orthodontist can easily be unaware.

The volume is of value to those who, possessing a basic knowledge of orthodontics, wish to increase their ability to treat. R.E.R.

The Spread of Tumours in the Human Body. By R. A. WILLIS. Butterworth & Co. *Price* 63*s*.

This second edition has been enlarged mainly as a result of the inclusion of separate chapters on secondary tumours of individual organs. Many parts of it have been re-written. The illustrations are of a high quality, some of the photo-micrographs being quite unsurpassed in their excellence.

The author's ability to draw extensively on his personal experience and the very comprehensive bibliography make this work a valuable book of reference and an excellent companion to the *Pathology of Tumours*. The clear and orderly manner in which the subject matter is set out ensures pleasant and easy reading for the student who will derive benefit more from reading specific items than from attempting to read from cover to cover. This book is clearly invaluable to both undergraduate and pathologist. D.A.O.

SPORT

RUGBY FOOTBALL

Guy's *v.* Cambridge University

At Cambridge. Result : Lost 3—39
12th November, 1952

This was a most unfortunate result. The Hospital line was crossed on nine occasions and had the Cambridge kickers been on form the score would have been over 50. Guy's were under the severe handicap of playing virtually six forwards. Honey left the field in the first half with a dislocated elbow and Pook was concussed shortly after that. Up to that time Guy's were holding Cambridge in front and at three-quarters. The game was played at a cracking pace throughout and whereas the extremely fit and fast Cambridge pack lasted the pace the reduced Guy's pack were simply run off their feet in the second half.

The half-time score was 14–3. Howells kicked the solitary penalty goal for the Hospital after previously missing a similar attempt. Howells was the only player to triumph in adversity by bringing off superb tackles on many occasions. Thomas on the left wing had the measure of his opposite number and Kirkbride in the pack did the work of several. The three-quarter line had no real chance of showing its attacking powers and mid-field the defence was inadequate.

It is to be hoped that the lessons learnt in this match will be applied in the future. Cambridge gave an object lesson in all phases of the game. One thing, however, stood out above all the rest—fitness !

Guy's *v.* Coventry

At Coventry. Result : Lost 6—14

22nd November, 1952

Guy's lost the toss at Coventry and played against the wind in the first half. After initially holding Coventry in their 25, Guy's found themselves defending for most of the first half. The Coventry backs were throwing the ball about with gay abandon and gained ground purely because backs and forwards alike refused to go for the man with the ball. However, the defence somehow held until a Coventry centre dropped a neat goal from 30 yards out. Ten minutes later I. P. Campbell, the Coventry stand-off half, broke away on the half-way line to score unmolested under the posts. This try was converted. A little later the lead was further increased by an unconverted try when a forward was allowed to go over from a quick throw-in from a line-out near the Guy's line. Just before half-time Coventry scored again from a penalty for a scrum infringement.

Rugby Football (cont.)—

Guy's crossed over 14 points in arrears. Up to this time nothing had been seen of Guy's —except in defence— but after a quarter of an hour of scrappy play Guy's suddenly woke up. Following a forward rush up to the Coventry line, there was a quick heel and Knight forced his way over for a try. The kick at goal hit the upright. A short while later Kingston went over for another unconverted try after most of the backs and some of the forwards had handled the ball. The last ten minutes of the game saw a continuous onslaught on the Coventry line but without a further score resulting. Coventry thus won by 14 points to 6.

Guy's can only blame their forwards who, except in the last twenty minutes, were extremely lethargic. Several of the Coventry pack were away playing for the county, and yet Guy's were losing the ball from line-out and scrum and were more than sluggish in the loose. Only Kirkbride showed anything like the form we have come to expect from the pack. Campbell, at stand-off half for the home team, was allowed too much rope and he provided the main danger in the Coventry back division. He was slowed up but rarely tackled by the wing forwards, and should have been tackled by the covering forwards after making his breaks.

No criticism can be levelled at the backs for the defeat. Whenever they had the ball (and that was seldom) they looked dangerous. Both Hackett and Hawley are two promising centres who tackled well and had an eye for an opening. The wings saw little of the ball. Scott, at full back, was very sound with his fielding and tackling but was occasionally at fault with his touch-finding.

Altogether then, this was a rather disappointing game which might well have been a different story if the forwards could have given the backs the ball.

Team : S. C. C. Scott ; G. D. Thomas, G. W. Hackett, R. T. Hawley, J. C. Kingston ; T. Smith, R. K. Knight ; D. K. Fairweather, D. L. H. Clark, J. W. Kirkbride, J. S. Van den Berg, R. C. Morgan, N. W. Glendenning, H. C. Meredith, B. J. Cremin.

HOCKEY

Guy's 1st XI *v.* Wallington 1st XI

At Wallington. Result : Draw 2—2
22nd November, 1952

Guy's were entertained by Wallington and on a ground made soft by heavy overnight rain put up an indifferent performance.

In the opening stages of the game the Hospital moved the ball about well and repeatedly split the Wallington defence. Cooke on the right wing frequently made good runs and his passes were both hard and well placed ; only a lack of accuracy by the inside forwards prevented Guy's scoring several goals. Partridge, following up one of these passes, flicked the ball into the net when it rebounded from the goal post. Straight from the bully off Wallington scored. This was due to very lazy covering by the Hospital defence.

Shortly afterwards Wallington were awarded a penalty corner and only the presence of Tuddenham in the corner of the net prevented a goal being scored.

After ten minutes of the second half Wallington took the lead ; this was again due to a defensive error. Half backs must not emulate inside forwards by dribbling. The Hospital were now on their best form and an equaliser by Paul was only justice. In the last few minutes the Hospital were unlucky not to score on several occasions.

Guy's failed to win this game due to their all-round weakness. The only players to emerge with enhanced reputations were Elsdon-Dew and Cooke, the latter was the best of the Hospital forwards and his passes gave the inside forwards plenty of opportunity to score but their shooting was inaccurate. The defence was patchy and on several occasions the opposition were prevented from scoring by luck rather than good hockey.

Scorers : Partridge 1, Paul 1.
Team : C. H. Bishop ; J. J. Hall, H. M. Tuddenham ; W. R. O. Eggington, R. W. Elsdon-Dew, P. J. Willard ; N. Cooke, R. R. Paul, J. S. Partridge, J. I. Millar, M. Willis.

Guy's 3rd XI *v.* Wallington 3rd XI

Result : Lost 1—3

Guy's 1st XI *v.* Gravesend 1st XI

Result : Won 1—0
15th November, 1952

By prior arrangement it was agreed to try the Hockey Association suggestion that " the ball be hit into play instead of being rolled in ", and this led to a fast open game which was much enjoyed by players and spectators alike.

Play began and the Guy's forwards submitted the Gravesend goal to a great deal of pressure. But soon the opponents' superior teamwork became apparent and the Hospital were forced into their own half from which they emerged at infrequent intervals. Repeated attacks by Gravesend were repulsed but twice they should have scored. On one of the occasions a penalty bully was awarded against Hall who won the bully in a convincing manner.

The second half saw the Hospital playing entirely on the defensive, the play being all in their own half. It was only determined tackling that prevented Gravesend from scoring. Then, ten minutes from time, Elsdon-Dew cleared to Partridge on the left wing who beat three men in his run to the circle before sending a copy-book reverse stick pass to Paul who scored. This goal was against the run of the play and Gravesend renewed their attacks determined to wipe out the arrears but their forwards could not pierce a defence which, reinforced by the inside forwards, repeatedly found touch with hard drives.

Gravesend are the strongest team the Hockey Club plays and Guy's owe their victory to the wonderful spirit with which every member of the team played, especially the backs. The defence in general covered well and hit the ball hard. Hall and Elsdon-Dew were particularly reliable and Bishop's anticipation saved several almost certain goals. Of the forwards Paul was probably the best and the energetic way he tackled back sets a high standard for the remainder of the season.

Scorer : Paul 1.

Team : C. H. Bishop ; J. J. Hall, K. B. Tyrer ; W. R. O. Eggington, R. W. Elsdon-Dew, P. J. Willard ; M. H. Cox, R. R. Paul, M. Willis, J. I. Millar, J. S. Partridge.

Guy's 2nd XI *v.* Gravesend 2nd XI

Result : Won 3—1

Guy's 3rd XI *v.* Gravesend 3rd XI

Result : Lost 1—3

Guy's "A" XI *v.* London School of Economics 1st XI

Result : Draw 2—2
19th November, 1952

LADIES' HOCKEY

1st XI *v.* London Hospital
Result : Won 5—0
15th November, 1952

Inter-Hospitals' Tournament. 1st Round
***v.* King's College Hospital**
Result : Won 3—1
12th November, 1952

2nd XI *v.*
St. Bartholomew's Hospital 2nd XI
Result : Lost 0—3
19th November, 1952

NETBALL

Guy's *v.* St. Mary's Hospital
At H.O.P. Result : Won 13—9
12th November, 1952

CHESS

London University Chess League
Division III

Guy's *v.* Chelsea Polytechnic II
Result : Won 4½—1½
20th October, 1952

Guy's *v.* Birkbeck College
Result : Won 4—2
3rd November, 1952

Guy's *v.* London Hospital II
Result : Drawn 3—3
17th November, 1952

HOSPITAL INFORMATION

House Appointments

1st DECEMBER, 1952

HOUSE SURGEONS.

To Mr. Massie : Mr. A. P. Blower. 3 *months*
„ Mr. Eckhoff : Mr. J. H. Kerr. 6 *months*
„ Mr. Atkins : Mr. E. D. Sonnenfeld. 3 *months*
„ Mr. Wass : Mr. G. A. Marin. 6 *months*

HOUSE PHYSICIANS.

To Sir John Conybeare, Mr. C. F. Bolton. 3 *months.*
„ Dr. Hardwick and
„ Dr. Campbell : Mr. J. A. Smith. 6 *months.*
„ Dr. Douthwaite,
„ Dr. Mann and Miss E. Morrison.
„ Dr. Bishop : Mr. A. Fairley. 3 *months*

„ Dr. Boland,
„ Dr. Baker and
„ Dr. MacLean : Mr. B. L. Mallett. 6 *months*

„ Dr. Hampson,
„ Dr. Kauntze and
„ Dr. Grant : Miss J. C. M. Heylen. 6 *months*

OUT-PATIENT OFFICERS.

Mr. M. H. H. Bishop.
Miss J. E. Brett.
Mr. P. F. A. Crawshaw.
Mr. W. D. Hayley.
} 3 *months.*

ASSISTANT HOUSE SURGEONS.

To Mr. Slesinger : Mr. C. T. M. Wilson.
„ Mr. Blackburn : Mr. J. M. Rigg.
„ Mr. Lawrie : Mr. J. Ernsting.
„ Mr. Glover : Mr. J. Liddell.
„ Mr. Brain : Mr. G. L. S. Rankin.

Appointed for six months, the first three months as A.H.S.

ASSISTANT HOUSE PHYSICIANS.

To Dr. Boland,
„ Dr. Baker and
„ Dr. MacLean : Mr. P. K. M. Barrett.
„ Dr. Hampson,
„ Dr. Kauntze and
„ Dr. Grant Mr. D. A. F. McGill.

Appointed for six months, the first three months as A.H.P.

RESIDENT OBSTETRICIANS.

1. 7.52—31.12.52 : Mr. R. G. Nicholson.
1. 9.52—28. 2.53 : Mr. A. S. Harris.
1.11.52—30. 4.53 : Mr. A. A. Craigen.
1. 1.53—30. 6.53 : Mr. D. C. Wilkins.

OPHTHALMIC HOUSE SURGEON.

(Non-resident)
Mr. A. S. Jones. 3 *months.*

Continued overleaf

House Appointments (cont.)—

THROAT AND EAR HOUSE SURGEON.

Mr. L. J. Bishop. 3 *months at Guy's*
3 *months Orpington*

DERMATOLOGICAL HOUSE PHYSICIAN.

(Non-resident)

Mr. V. Ainsworth. 6 *months.*

NEUROLOGICAL HOUSE PHYSICIAN.

Mr. W. G. Davies. 3 *months.*

GENITO-URINARY HOUSE SURGEON.

Mr. W. M. E. Tweed. 3 *months.*

CHILDREN'S HOUSE PHYSICIANS.

Mr. A. J. Salmon. 3 *months.*
Mr. P. J. Lyne. 6 *months.*

HOUSE SURGEON TO THE THORACIC UNIT.

Mr. G. M. Karpusheff. 6 *months.*

RESIDENT JUNIOR CLINICAL PATHOLOGISTS.

1.10.52—31.3.53 : Mr. R. H. R. White.
8. 9.52— 7.3.53 : Mr. E. R. Herst.

HOUSE PHYSICIANS IN THE YORK CLINIC.

1. 9.52—28.2.53 : Mr. I. E. Evans.
1.12.52—31.5.53 : Mr. E. J. Rolls.

RESIDENT ANÆSTHETISTS.

7.7.52— 6.1.53 : Mr. M. P. Coplans.
20.9.52—19.3.53 : Mr. J. A. Thornton.
7.1.53— 6.7.53 : Mr. M. P. Coplans.

R.M.O'S., NUFFIELD HOUSE.

18. 9.52—17.3.53 : Mr. E. F. Soothill.
8.10.52— 7.4.53 : Mr. H. M. Baird.

ORPINGTON HOSPITAL.

Throat and Ear House Surgeon.

Mr. C. P. B. Brook.
3 *months at Orpington*, 3 *months at Guy's.*

Orthopædic House Surgeon.

Mr. J. Palmer.

House Surgeon.

Mr. E. C. Dawson.

ST. OLAVE'S HOSPITAL.

House Surgeon.

Mr. W. A. G. Roper.

APPOINTMENT VACANT

EVELINA CHILDREN'S HOSPITAL
of GUY'S HOSPITAL
Southwark Bridge Road, London, S.E.1

Required—**House Physician** (2nd or 3rd post). Appointment is from 1st January, 1953, for 6 months (first 2 months in the Casualty Department), and is recognised for the D.C.H. Salary £400 or £450 per annum, less £100 per annum for residential emoluments.

Applications, stating age, nationality, qualifications (with dates) and copies of three recent testimonials, should reach the Hospital Secretary by **11th December, 1952.**

GUY'S HOSPITAL DENTAL SOCIETY

Programme for Session 1952–53

1952

Friday, 5th December, 5.15 *p.m.*
An Historic Approach to Restorative Dentistry—R. Pownall, L.D.S., R.C.S.

1953

Tuesday, 13th January, 5.15 *p.m.*
The Electric Pulp Tester and its application in cases of pulp amputation—J. Scoones, L.D.S., R.C.S.

Tuesday, 27th January, 5.15 *p.m.*
Elementary Dental Dynamics—W. Sims.

Tuesday, 10th February, 5.15 *p.m.*
The Mouth and Teeth of the African—M. Waboso.

Tuesday, 24th February, 5.15 *p.m.*
"Cooking the Books"—G. Wade, L.D.S., R.C.S.

Saturday, 7th March.
Annual Dinner, Park Lane Hotel.

Tuesday, 17th March.
Some Systemic Factors in Stomatitis—D. Osmond Smith.

Tuesday, 31st March.
My Idea of a Dental Course—D. Noble, M.B., B.Ch.

Tea will be served before each meeting in the College Cafeteria at 4.45 p.m. Tickets for tea are obtainable from the Dental School Porter.

BIRTHS

FINCHAM.—On 30th October, 1952, to Elizabeth Fincham, M.B., B.S., (née Campion), wife of Dr. Paul Fincham—a son (Anthony Clive).

JACK.—On 11th November, 1952, at Guy's Hospital, to Margaret Prema (née Marris), wife of Allan I. Jack, of Allahabad Bank, Calcutta—a daughter.

KENT.—On 27th October, 1952, at Guy's Hospital, to Elsie (née Duffield), wife of Dr. J. V. Kent—a brother for Susan (Nicholas Young).

STOKER.—On 16th November, 1952, at R.A.F. Hospital, Ely, to Anne (née Forster), wife of Dennis Stoker, M.B., B.S.—a daughter (Claire).

DEATH

BLEWETT.—On 31st July, 1951, Graham Livingstone Blewett, M.B., B.S., the result of a motoring accident in Singapore.

Eds. { E.E.D.T. / R.D.W.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1680 *13th December* 1952 *One Shilling*

PASSIM

" To see the dingy cloud come drooping down, obscuring everything, one might have thought that nature lived hard by, and was brewing on a large scale."—

CHARLES DICKENS.

FOG, like propaganda, never strikes a direct blow : her influence is insidious and profound. Confusion and Frustration are her progeny. The more sharp the light used in an effort to penetrate her dark embrace the more baffling the reflected glow from her blank, blind, stare. She imposes loneliness in familiar places and exacts inescapable homage to Delay.

The fog that enveloped London last week-end will long be remembered not on account of any special or individual characteristic (for fog, by rubbing out the sharp outlines of person, building, and sun, delights in obscurity of form) but because of the vague yet persistent dismalness of the four days' gloom.

Under this insidious impact the familiar contours of the Hospital were soon reduced to blurred phantoms. Even in broad day the vista along the Colonnade from the steps which lead up from the Park revealed, at the main entrance, a lurid ruddy glow where bright day normally outlines the arches there, making the dripping pavement appear for all the world like some smooth pathway leading to a distant inferno whose flames were gasping in a sickly atmosphere of grime. Little lights, red, yellow, green and white, winked in the gloom. From the far distant chasms of London Bridge station came the muffled shriek of whistles, a confused cascade of instructions to patient crowds from overworked loudspeakers, and the boom of detonators far down the line. One could almost eat the suspended particles in the yellow air. Cars crawled in the streets and, as the day wore through, seemed even too tired to crawl. Night was uncanny and silent.

In the Hospital the lights burned yellow, and patients in beds at the ends of long wards like *Addison* or *Sarah Swift* seemed mysteriously removed from reality in their own hazy world. The sight of a mask taken from the face after an hour or so was a grubby revelation. Oxygen for the " chesty " was much in demand. The nursing and domestic staff struggled against increasing difficulty when time tables and organization had to be improvised because reliefs were delayed. Ambulances bringing the acutely ill discharged patients needing even more urgent attention after spending hours on a few minutes' journey. The battle with Fog was joined.

Last Monday morning the Hospital came again into view. There was little to show for its long dive in the gloom. Some misdirected labourer had abandoned a remarkably ineffective attempt to renovate a letter-box on discovering that he was decorating Guy's statue by mistake. His traces were removed by 10 o'clock. Grimy streaks ran down a hundred walls. But that was all. We had come up for air.

Never is cardboard more courted than at this time of year ! The ample sides of many a large box which is carried into the wards scarcely excite a passing glance at any other time, but just now they are carefully scrutinised, and anxious mental calculations determine whether or not they will serve for the Christmas decorative plan.

Sisters disclose hidden stores of coloured paper, paint, brushes and string in innocent-looking cupboards which have, till now, never stimulated a ward clerk's or dresser's curiosity. Patients are busily occupied in " piece work " ; secrecy and suspense are revealed in every knowing smile.

Pay court to Christmas cardboard ! Any large sheet is welcomed in the wards.

December

		Exhibition. Surgical Department. " The Surgery of the Testicle."
15th	12.00.	Mr. A. Bulleid. Dental Clinical Lecture. " Has Bacteriology helped the elucidation of Dental Problems ? " Physiology Theatre.
16th	1.00.	Dr. T. H. Hills. Clinical Lecture. " Current Trends in Diagnostic Radiology."
17th	12.00.	Sir William Kelsey Fry. Dental Clinical Lecture. " Assessing the Impacted Wisdom Tooth." Dental Theatre.
18th	1.00.	Mr. J. B. Blaikley. Clinical Lecture. " Radiotherapy in Carcinoma of the Cervix."
	5.00.	X-ray Meeting. Gordon Museum.
19th	1.00.	Sir John Conybeare. Clinical Lecture. " The Clinical Features of Angina and Cardiac Infarction."
	2.15.	Combined Round. Preclinical Classroom.
22nd	1.00.	Mr. J. S. Batchelor. Clinical Lecture. " Congenital Dislocation of the Hip."
29th	12.00.	Mr. H. H. Kenshole. Dental Clinical Lecture. " Forensic Dentistry." Anatomical Theatre.
	1.00.	Dr. Carter Braine. Clinical Lecture.

CHRISTMAS, 1952

PRINCIPAL SERVICES IN THE CHAPEL

Monday, December 22nd :	8.30 p.m.	Service of Lessons and Carols.
Tuesday, December 23rd :	9.15 p.m.	Preparation for Holy Communion.
Wednesday, Christmas Eve :	11.40 p.m.	Procession, Blessing of the Crib, Mass of Midnight with Holy Communion.
Christmas Day :	7.0 a.m.	Holy Communion.
Friday, St. Stephen, Martyr Saturday, St. John, Evangelist	7.0 a.m.	Holy Communion.

On Sunday, December 28th, Feast of the Holy Innocents, the Guy's choir which sings on the 22nd, will sing a service of carols at 6.30 p.m. in SOUTHWARK CATHEDRAL. There will be a short address by the Provost of Southwark.

Details of other services will be found on the posters in the hospital.

The Methods of Restoring the Partial and the Complete Loss of one or more Anterior Teeth

By GRAFTON MAGGS, L.D.S., R.C.S. (ENG.)

A thesis submitted for the Newland Pedley Prize Examination, 1952, published by permission of the Dental Council.

INTRODUCTION

THE subject of this paper embraces much of the wide range of Conservative Dentistry. In addition, it covers a section of Prosthetic Dentistry. This Thesis does not attempt to cover all those methods available for restorations of this type. It would be beyond the scope of such a work. However, many methods will be discussed, in particular those which are popular at the present time in Guy's Hospital.

This type of work is probably the most rewarding and satisfying that the enthusiastic operator can undertake. To restore the partial or the complete loss of one or more anterior teeth performs a service to the patient of the greatest importance, both from a psychological and functional viewpoint.

The subject will be dealt with under the following headings, use being made of Black's Classification of Cavities to simplify description :—

A. *The Methods of Restoring the Partial Loss of One or More Anterior Teeth*

(i) By filling materials.

(ii) By crowns.

B. *The Methods of Restoring the Complete Loss of One or More Anterior Teeth.*

(i) By bridges.

(ii) By dentures.

To avoid complications, the methods described will refer to the *Upper* anterior teeth. Any modifications required for lower restorations will be stated at the end of the passage.

A. THE METHODS OF RESTORING THE PARTIAL LOSS OF ONE OR MORE ANTERIOR TEETH.

(i) *By filling materials.*

(*a*) *Class 1 Cavities.* These cavities in the anterior teeth are out of sight ; æsthetics is, therefore, not an important factor and the following methods have been used by the author :—

1. *Restoration by Cohesive Gold.* If the cavity is not too big, this is the method *par excellence.* The cavity is undercut and has bevelled enamel edges (such cavities and details of the technique in filling them are found in books on Operative Dental Surgery, e.g., Parfitt and Herbert[1])*. A rubber dam is applied to the teeth to isolate them from the fluids of the mouth—this is essential. Meanwhile, foil and sponge gold should be annealed. To start the filling the author has been most successful by placing a small piece of sponge gold on to a layer of soft zinc oxy-phosphate cement, allowing this to set and then completing the restoration with foil. The cavity is filled, the excess stoned away and the filling polished to an edge-free finish.

With experience, a small cingulum pit, which is carious, can be cut, filled and finished within half an hour. If well done, the resulting filling is an excellent restoration (as is borne out by the observations of Skinner[6]).

2. *Restoration by Amalgam.* Where the cavity is larger than that described in the above case, a cohesive gold restoration becomes tedious, particularly for the patient. A quicker method is by using amalgam. The cavity must be

* *Small numbers refer to references at the end of the second part of this article, which will be published in our next issue.*

undercut and is lined with zinc oxy-phosphate cement (details in Parfitt and Herbert[2]). This prevents any tendency for the amalgam to discolour the dentine and acts as an insulating layer.

A cotton wool roll in the labial sulcus will absorb any saliva and help keep the cavity dry. The amalgam is packed in and well condensed. Excess is removed with a plastic instrument and the surface smoothed with a moistened pledget of cotton wool. The filling is polished upon a subsequent visit. This restoration also has a good life. The main disadvantage is a tendency to darken the colour of the tooth, particularly if cavity has not been lined.

3. *Restoration by Silicate Cement.* If the cavity is so extensive as to leave a thin labial surface through which amalgam might show, an alternative is to use silicate cement (or, of course, a crown). The cavity is undercut and the pulpal surface protected with zinc oxy-phosphate cement. A rubber dam is applied and the cement mixed and inserted (for details, Parfitt and Herbert[3]). The filling, after setting, is protected with a layer of Sandarac Varnish and the rubber dam removed. Upon a subsequent visit any excess cement is removed and the filling polished.

(*b*) *Class* 3 *Cavities.* This class frequently occurs in the anterior teeth and calls for a measure of skill to obtain a good æsthetic result. The following methods are available :—

1. *Restoration by Silicate Cement.* At the present day, this is the material most commonly used. The cavity is undercut and after applying a rubber dam, a thin celluloid strip is inserted between the cavity and the adjacent tooth. A wooden wedge is placed so as to adapt the strip tightly against the cervical margin above the cavity. This is important as it prevents excess being pushed up cervical to the cavity. The cement is mixed and inserted quickly into the cavity, the strip is brought around to bring pressure upon it. This pressure is maintained until the cement is set. Procedure is then as stated before.

Silicate cement has the advantage of being a quick method and gives a good æsthetic result. Its disadvantages are described by Skinner, it is soluble in the mouth fluids and tends to discolour in the average mouth. Correct technique retards these changes. In addition, Manley[7] has demonstrated the toxic effect of the material on the pulp. The pulpal surface of a cavity must always, therefore, be protected. The author does this with a layer of zinc oxy-phosphate cement (zinc oxide mixed with one of the essential oils rapidly discolours a silicate and cannot be used for this purpose).

2. *Restoration by Self-Polymerising Resins.* This material is still in its infancy and new additions are appearing upon the market at intervals. Much literature has been published recently upon the subject. The latest shows a great improvement upon the earlier products. It has a short curing period and at the time of insertion a very good æsthetic result. Cavity preparation is the same as for the silicates and a similar technique is involved. Maclean[8] has gone to great lengths to describe his methods. Unfortunately, those fillings which the author has examined, three to six months after insertion by an expert, appear to have swollen out of the cavity and discoloured (a " yellowing "). In spite of these faults, the author feels that the long-awaited perfect anterior restoration might lie somewhere in this field.

3. *Restoration by Amalgam.* This material can be used when the labial surface is not involved or too thin. It is a more permanent filling than the above two methods. Packing the cavity is facilitated by the use of a celluloid strip wedged as a matrix. Cavity preparation is described in Parfitt and Herbert[2].

4. *Restoration by Gold Inlay.* An excellent method when the labial surface is not involved and the caries has undermined the incisal corner. The gold gives good support to this weakened edge. The cavity is cut to enable palatal withdrawal. Softened blue inlay wax is pressed into the cavity, proximal adaptation being helped by a celluloid strip. The pattern is carved, removed, invested and cast. Upon the next visit, it can be fitted and polished.

5. *Restoration by Cohesive Gold.* A difficult method in this class of cavity. The author confines it to the situation where the adjoining tooth is missing or has been cut back for an extensive restoration (e.g., a crown).

(*c*) *Class* 4 *Cavities.* Here an additional factor is brought to play which does not occur in the other restorations, viz. :— the biting force of the opposing teeth. Therefore, to be satisfactory, the restoration must be strong as well as good æsthetically.

Some operators hold the extreme view, that any portion of a tooth missing, involving a corner, should be restored by a crown. The author does not hold this view and believes in a less radical approach. The extent of tooth loss, amongst other factors, deciding the course of treatment.

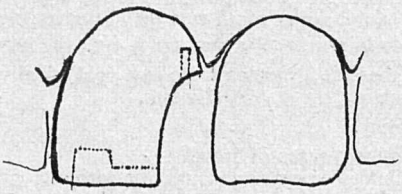
The author has made and examined attempts at restoration of this class and is quite convinced that none of the present materials, or combination of them, can give a perfect result. Even so, to remove a considerable portion of tooth substance for the preparation of a jacket crown, just to replace one little corner, seems very drastic.

The following methods of restoration have been tried or examined :—

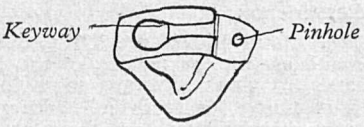
1. *Silicate Cement.* The cavity preparation must be undercut—increased retention and strength can be obtained by a dentine screw. A crown former or bent celluloid strip is used as a matrix. Procedure is as before. Care must be taken to ensure the filling is free of the bite. The æsthetic result is good but has all the disadvantages of a silicate, in addition to being subject to an unfavourable biting force. It can, of course, be replaced quite easily.

2. *Gold Inlay.* The usual preparation for this class is the lingual dovetail (illustrated in Parfitt and Herbert[4]). The author has tried this method in a number of cases, with and without facings. He has found it to be very successful from the retention point of view. For a good æsthetic result, the inlay must be prepared to receive a facing by having an undercut labial surface. The facing material used usually is silicate cement, but even in the hands of the expert it is very difficult to match up this facing with the tooth substance. This is due to the gold showing through the translucent cement ; however, the effect is less ostentatious than without. Facings of normal cured acrylic resin and of the self-polymerised resin have been tried by some operators with varying degrees of success. A variation of the above type of restoration was tried by the author on a Mrs. B. A fair amount of attrition on her anterior teeth caused the incisal edges to be greater in width palatolabially than is

Figure 1. *Class* 4 *Preparation as carried out on Mrs. B.*



Labial view



Incisal view

normally seen. The mesial corner of 1/ was missing, one third of the incisal edge being deficient. The dovetail was cut in the incisal edge and a pin was sunk 2 mm. vertically into the cervical part of the cavity (see figure 1). A pattern was carved and withdrawn incisally. After casting the inlay was fitted and found to be very much more stable, uncemented, than the more orthodox pattern. The author intends to use this method wherever he can in future.

3. *Porcelain Inlay.* This method calls for a great deal of skill and experience. The end result, if done well, gives a lasting serviceable filling. The cavity preparation and technique is illustrated in Parfitt and Herbert[5]. An amalgam die is made from the impression and the inlay constructed, using it as the master model. Unfortunately, the so-called " cement line " eventually appears which spoils the appearance somewhat.

Restoration of the Whole Tip.

From the above methods, it is obvious that the same difficulties of strength and æsthetics are encountered in this restoration, only more so. The author believes that a satisfactory result can only be achieved by crowning.

(*d*) *Class 5 Cavities.*

1. *Restoration by Silicate Cement.* The cavity is prepared undercut. This method is quite satisfactory æsthetically but of course has the general disadvantages of silicate cements. When the cavity extends above the gum margin, the material sometimes irritates the gingivæ.

2. *Porcelain Inlays.* This is probably the best site for the porcelain inlay. The cavity is cut free of undercut with no bevels. In this site, the " cement line " is not so prominent and the material is non-irritant to the gum.

3. *Self-Polymerising Resins.* The author has yet to be convinced of the permanency of this material but has seen some good results in restorations of this type.

An improvement of the above is to make an inlay of normal cured acrylic resin, render it edge-free and cement in with the quick cure material.

4. *Cohesive Gold.* This is a good method for the canine region where it will be less obvious. The cavity is undercut with bevelled edges. Access is good and a rubber dam can be easily applied. An oozing gum margin can be prevented by applying a little 10% trichloracetic acid (Dilling and Hallam[9]).

5. *Amalgam.* Can be used in sites similar to the above, where access might be difficult or the cavity too big for a cohesive gold.

6. *Gold Inlay.* Can be used in sites similar to 4. Cavity preparation is free of undercut and has a bevelled edge.

All the above methods have been written with special reference to the upper teeth. They can be applied to the lower teeth also if the following points are considered :—

(*a*) The difference in direction of the biting force, e.g., modifying the lingual dovetail of the upper tooth to a labial dovetail in the lower.

(*b*) The lesser importance of æsthetics, e.g., the lesser need of facings.

(*c*) The fact that the lower teeth are in a pool of saliva most of the time, e.g., contra-indicating the use of silicates.

(ii) *By Crowning.*

Basically there are two types of crown :—

1. *The Jacket Crown*—constructed usually with the vital tooth.

2. *The Post Crown*—constructed where the tooth is pulpless and successful root canal therapy has been carried out.

Needless to say, many types of the above crown are described in textbooks, but the author will describe (and illustrate where possible) only those crowns with which he has had experience.

1. *The Jacket Crown.* As mentioned previously, different views exist as to the indications for and against the making of the Jacket Crown. The author has already stated his views regarding tooth loss as a factor. In addition, discoloration of fillings or tooth substance must be considered. Depending upon the type of restoration (e.g., be it an all porcelain veneer

crown, or a gold-backed restoration, etc.), so the preparation differs and will be described under the appropriate headings.

Before commencing any preparation, it is a wise precaution to X-ray the tooth and gain information regarding size and shape of the pulp chamber.

If there is much caries present, the author removes it first, fills the resulting cavity with zinc oxy-phosphate cement or amalgam and then proceeds as if the tooth were whole. By experience, he has found the following instruments very useful :—

A safe-sided diamond disc.

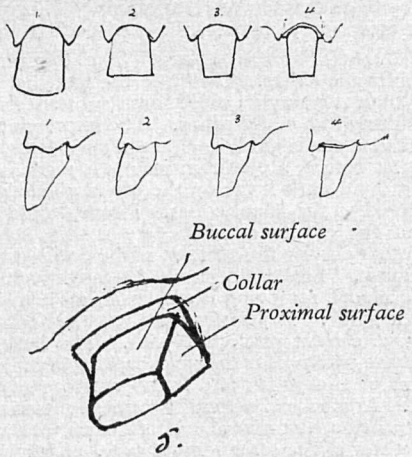
An edge-cutting diamond disc.

Tapering diamond fissure burs, for straight and contra-angle hand-pieces.

With these instruments the bulk of a preparation can be cut speedily and safely using a water spray.

(*a*) *The Gold-Backed Acrylic Crown.* Using the instruments listed above, the tooth is cut in the stages shown in the diagram, care being taken not to damage adjacent teeth. As the crown is gold-backed, a collar is needed only on the labial surface to accommodate the acrylic facing. This collar is extended on to the proximal surfaces, decreasing in width to nothing as it reaches the palatal surface. It should be cut so that it is above the level of the gingival margin. Finally, before taking impressions all surfaces of the preparation are smoothed and corners rounded with a smooth sandpaper disc. The impression is taken with a composition-filled copper ring, which has previously been fitted and contoured before the collar was cut. In order to locate the resulting amalgam die relative to the other teeth, wax is pressed up around the preparation, a plaster impression is taken over it and the whole removed. A wax bite is taken. The amalgam die is placed in the wax and plaster impression and the plaster model poured. The wax bite is used to give a model of the opposing teeth. Upon this amalgam die a platinum matrix is constructed, the stages of which are illustrated in Tylman[10].

To Illustrate Stages in Preparation of Jacket Crown (Gold-Backed)



1. *Uncut tooth.*
2. *Tooth is reduced in height (1/5th).*
3. *Proximal slices cut and buccal and palatal enamel reduced.*
4. *Collar is cut above level of gum margin.*
5. *An attempt to show the preparation from a perspective incisal viewpoint. Note collar disappears before palatal surface is reached.*

The wax-up for the gold backing is now commenced, the following points being borne in mind :—

1. That the gold has to offer retention for the acrylic facing.
2. It should have retaining arms upon the tooth preparation.
3. No gold should show labially when the crown is fitted.
4. It should be free of the bite of the opposing teeth.

After casting the backing, the author usually has a try-in in the patient's mouth. This is to check fit, position and shape of the gold. The gold is replaced on the die and the facing carved up on it in wax. This is then re-checked by placing back in the patient's mouth and any further anatomical details added. The tooth shade is selected in a good northern light. The gold and wax is flasked, use being made of a compensating plaster which will allow for contraction of the acrylic resin. A long cure of the facing is advocated. The author favours three-quarters of an hour to bring to the boil and one hour actually at the boil. Cooling can be either on the bench or in cold water, depending upon available time.

An additional aid for better æsthetics is to coat the layer of gold which will lie beneath the facing with a layer of white enamel paint. This prevents the gold showing through. Next visit, the finished crown is placed in the patient's mouth and if satisfactory is cemented in with zinc oxy-phosphate cement.

At this stage, the question of æsthetics should be raised. Many operators, after having completed a brilliant piece of gold work (crown or bridge), tend to attach less importance to the facings. They should bear in mind, however, that as far as the patient is concerned, it is mainly the appearance that counts. Therefore the conscientious operator must aim for perfection in gold work *and* æsthetics. It is for this reason that the author has now swung over in favour towards the porcelain facing or preparation, with which he has had better results than with the acrylics. He believes he is echoing the general trend of opinion amongst most crown and bridge prosthetists. Unfortunately, the acrylic resins have not stood the test of time and have shown themselves to be unstable both from a functional and æsthetic standpoint. This is more than proven by the number of all acrylic-crowns which are being replaced from day to day by more permanent restorations. This introduces the second method of jacket crowning ; namely, the gold-backed porcelain crown.

(*b*) *The Gold-Backed Porcelain Crown.* The tooth preparation for this restoration resembles the above. Owing to the fact that the porcelain facing is a little thicker than the acrylic, more tooth substance is removed from the labial surface, resulting in a wider collar. The impressions and bite are taken as before. A porcelain shade guide and mould chart is used to select a suitable porcelain tooth. As before, a platinum matrix is made upon the die and the selected tooth is ground until it fits on the die in a suitable æsthetic position, being closely adapted to the labial collar. Room should be allowed between the porcelain and the die to accommodate a thin layer of gold. Before proceeding, the author checks the position of the porcelain facing on the model with that in the mouth. This can be easily done by roughly waxing the facing in position on the model, removing it and inserting it in the patient's mouth. The wax acts as a guide. If positions are identical relative to the adjacent teeth, the next stage can be proceeded with. The facing is oiled, replaced on the model and the wax-up for the gold backing completed. The facing is removed by means of sticky wax and if the wax backing is satisfactory it is invested and cast. A good expanding investment material is essential and to ensure further expansion, the investment is mixed with water at 100°F. and allowed to set in water of the same temperature. After casting, the porcelain facing is placed in the gold backing and tried in the patient's mouth. If satisfactory, they are cemented together and the gold carefully burnished around the porcelain. The finished crown is then cemented in the patient's mouth.

This technique is full of many pitfalls and calls for great care. The end result, however, is worth the effort and can only be surpassed by the all porcelain crown.

[*To be concluded in our next issue.*]

THE USE OF *TUBEGAUZ* IN THE BACK SURGERY

By SAM CADDICK, S.E.A.N., F.I.T.V.

TUBEGAUZ is a seamless tubular gauze made of double-bleached cotton yarn. It is stretchable but not elastic. When stretched lengthways its girth contracts and vice versa. It can be washed and sterilized and used many times over without loss of its characteristics. *Tubegauz* is designed as an improvement on the traditional methods of bandaging and can be used on all limbs. It is supplied in 25-yard rolls.

During the past three months the use of bandages in the Back Surgery has been abandoned in favour of *Tubegauz*, a change which, by reason of the speed of application of this new bandaging material, has appreciably reduced the waiting time for patients. It has been found particularly suitable for use in this department and has many advantages which will be dealt with later.

The Scope of Tubegauz and the Indications for its Use.

Tubegauz is applied by means of specially designed applicators of which there are ten in number covering all normal requirements. (See Table of Applicators.)

It is found in the Back Surgery that sizes up to 5 and 6 are in most common use, with only occasional need for the larger sizes.

Lacerations, grafts, burns, fractures, sprains, abscesses, pulp space infections, whitlows, paronychias, subungual hæmatomas, etc., of fingers and toes can all be successfully bandaged with *Tubegauz* on the smaller applicators 00 to 2; whilst lacerations and burns of hands, legs or arms, donor sites, boils, carbuncles, abscesses, thenar infections, bursitis of elbow, sprains of wrists, etc., will require applicators up to No. 5. Severe lacerations, burns or skin affections of the face and scalp can be bandaged with the larger size applicators 7 or 8.

Pressure, light or considerable, variable or general, can be applied to any one part or to the whole of a limb as may be desired, being entirely under the control of the dresser.

Tubegauz is strong enough to be used for extension, suspension and traction purposes. It can also be used for splinting and strapping with felt padding, wood or metal splinting.

The Technique of the Application of Tubegauz.

Fingers and Toes. Applicator 00 or 0 is used. A piece of *Tubegauz* a little more than twice the length of the digit is cut off the roll and gathered on to the applicator which is placed over the finger or toe. The end of the *Tubegauz* and dressing is held in position, the applicator is then withdrawn, twisting slightly, to the end of the finger. It is then rotated one complete turn and the applicator moved forward, again twisting slightly, when the *Tubegauz* doubles back forming the second layer (*see Figure* 1). The applicator is withdrawn and the bandage secured, usually with adhesive tape. Where the dressing is bulky or more than two layers of *Tubegauz* are required, applicator 1 or 2, which holds a considerable length of material, is used. The procedure is exactly the same except that when a

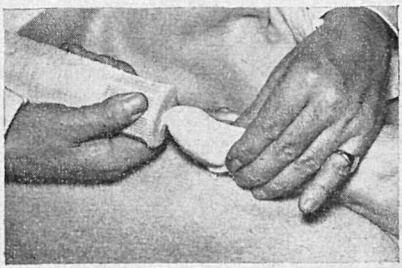


Figure 1

The first stage of finger bandaging.

sufficient number of layers has been applied and the bandage completed the *Tubegauz* has to be cut free of the applicator. Where a glove finger-stall type

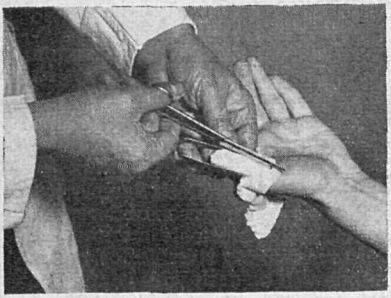


Figure 2

Tubegauz is cut along the under surface of the thumb.

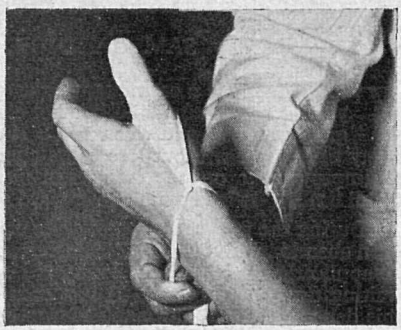


Figure 3.

The bandage is secured as a glove finger

of bandage is required, a sufficient length of *Tubegauz*, about five inches, is allowed before being cut free of the applicator; this spare material is then cut along the under surface of the finger, drawn back over the back of the hand and tied round the wrist (*see Figures* 2 *and* 3).

If an open ended bandage is required, the applicator is only withdrawn to the point where the bandage is to end, given a quarter turn and moved forward again, securing as above.

Arms and Legs. The applicator which will pass over the limb and dressing is chosen. It is passed over the limb to a point above the dressing and, whilst the *Tubegauz* and dressing is held in position with the left hand, it is withdrawn rotating slightly. When the bandage has covered the required portion of the limb it is given a quarter turn (this is called "anchoring") and the applicator is moved forward again still rotating; when it reaches the starting point it is given a quarter turn, cut free and secured in position. For more than two layers the procedure is repeated as desired. To apply pressure on any part or to the whole of a limb, the *Tubegauz* is stretched gently as it is rotated slightly; this contracts the girth of the bandage and exerts an even pressure.

Hands and Feet. Where the whole of the hand or foot is to be enclosed a suitable applicator is chosen and the procedure for arms or legs followed. When the applicator reaches the end of the fingers or toes it is given one

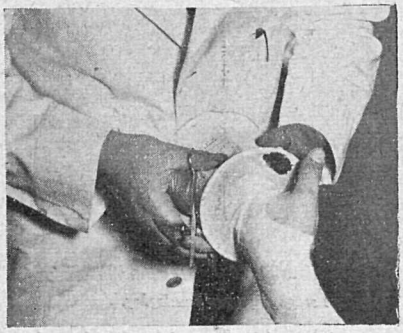


Figure 4

The thumb is pushed through the hole and the applicator is passed back over the hand.

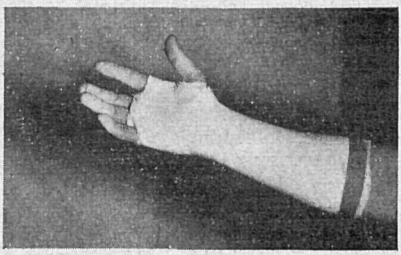


Figure 5

The completed bandage.

complete turn thus enclosing the hand or foot. It is then moved forward again and secured. This procedure can be varied to suit individual cases, e.g., the thumb can be left free and the rest of the hand enclosed. To accomplish this, when the applicator is withdrawn and reaches a point over the base of the thumb, a hole is cut in the *Tubegauz* and the thumb pushed through; the *Tubegauz* is then pulled back slightly on the applicator and rotated slightly before withdrawing to the end of the fingers. It is then given one complete turn and moved forward again and, as it reaches the thumb, a further hole is cut (*see Figure* 4), the thumb pushed through, the applicator being then moved forward to complete the bandage which is then cut free and secured. (*see Figure* 5.)

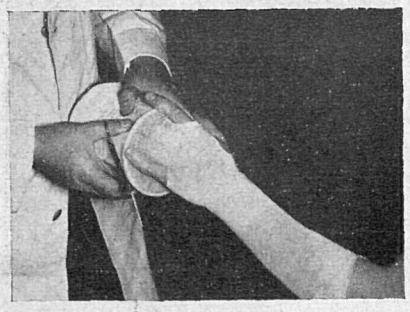


Figure 6

The fingers are pushed through holes cut in the material.

For web-space lacerations and infections and where it is desired to leave a finger or fingers free, the procedure is the same as for the thumb, appropriate holes being cut for the fingers, which are pushed through the *Tubegauz* as the applicator is moved over the fingers (*see Figure 6*).

Anchoring is always used where the bandage is not required to reach the extremity.

Collodian Splints can be applied to fingers and toes very simply, collodian being applied to each layer of *Tubegauz* during the process of bandaging.

Toe Splinting with Felt. Tubegauz is appled to one toe; when the applicator reaches the end of the toe a felt wedge is secured to the *Tubegauz* with adhesive tape and, after rotating one complete turn, the applicator is moved forward again, this time including the adjacent toe, thus splinting the two toes together.

Back Slabs, P.O.P. Splints, etc., can be held in position very satisfactorily with *Tubegauz*.

Tubegauz can be used to hold fingers in flexion, e.g., over a roller bandage. It can also be used for special dressings such as wet dressings and ointment dressings.

Head and Face : Capaline Bandages, Helmet Type Bandages or Masks are applied with the largest applicators and for these it is better to use a cut length of *Tubegauz* (approx. 1¼ yards). For a capaline bandage the applicator is rested lightly on the crown of the head, the *Tubegauz* is pulled down over the forehead and held in position (this can be held by the patient), the applicator is then lifted and when level with the crown of the head it is rotated one complete turn (*see Figure* 7*) and rested again over the crown, the second layer is pulled down off the applicator, which is then removed, and the bandage secured.

To apply a helmet-type bandage, the first and second layers are applied, as for capaline bandages, a further layer is then pulled down into a "roll" on to the forehead, the applicator is removed, the roll cut in the centre of the forehead, the two ends being stretched down over the ears and back of the head and tied under the chin (*see Figures* 7 *and* 8*).

For a *Mask*, proceed as for helmet-type bandage, but instead of cutting the third layer it is pulled down over the face and secured. If desired, holes can be cut for the eyes, nose and mouth.

Removing Tubegauz Bandages.

Where *Tubegauz* has been applied with rotation, it cannot be removed by pulling—this merely has the effect of tightening it. To remove, cut the adhesive plaster, and by rotating it in the opposite direction to that in which it was applied it will be found to loosen and be easily removed.

(* *overleaf*)

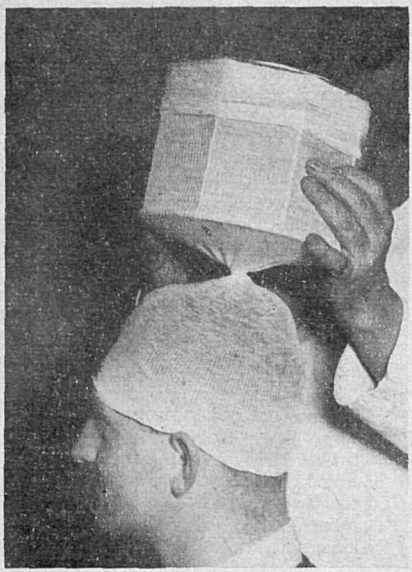


Figure 7

The first stage of the capaline bandage.

Figure 8

The helmet type bandage secured under the chin.

The Advantages of Tubegauz.

Tubegauz is easy to apply, taking but a fraction of the time used for normal bandaging, giving better coverage and with less bulk. Provided it has been evenly applied and efficiently anchored *Tubegauz* does not slip and become unravelled, as ordinary and crepe bandages tend to do, thus dressings can be left undisturbed over any required period. Cases have been left as long as two to three weeks and have returned with the *Tubegauz* intact, even over dressings of varying thicknesses.

A most important advantage is that *Tubegauz* does not fray, there are no loose threads, and consequently can be regarded as being much safer, from an industrial point of view, there being less danger of it getting entangled in machinery, etc.

It moulds itself over the joints and contours of a limb giving a neat and tidy appearance, comfortable to the patient. This neatness has to be seen to be believed. It can be applied to a limb or digit so gently that painful handling, common in ordinary bandaging processes, is eliminated, much to the relief of the patient who often makes a favourable comment about the " new type of bandage ".

It is adaptable for it can be used for fingers, toes, hands, feet, arms and head, whilst pressure can be applied wherever it is needed. It is particularly valuable in cases where grafting has been carried out, the dressing being kept intact over the required period.

It is soft enough to be used for the lightest of bandages yet strong enough for considerable tension to be applied when needed, e.g., extension of the lower limb in children.

It can be used over and over again without loss of its characteristics, it is washable and can be sterilised.

The applicators can be preloaded with considerable lengths of *Tubegauz*, facilitating quick bandaging.

In the Back Surgery it has been found particularly useful, for the speed of its application is such that, after being in use for only two months, there is a considerable reduction in the amount of time spent by patients waiting to be dressed.

The technique of the application, being easily learned, becomes most interesting with practice. Cases are constantly presenting new features, offering new bandaging problems to which the dressers, who rapidly become experienced in the use of the applicators, are applying the *Tubegauz* technique with success.

Economy.

Tubegauz is very economical when compared with ordinary bandages. A one-inch finger bandage costs 2½*d.*; whereas 12 inches of No. 01 *Tubegauz* (which is sufficient to dress one and sometimes two fingers) costs approximately one halfpenny. To this must be added the cost of the applicators (£2 5*s.* per set), though these last indefinitely. The half-inch to one-inch *Tubegauz* dressings last longer than the two and a half-inch bandage, and can be used again—in addition to being more efficient in almost every way as a bandage.

Tubegauz Applicators.

There are ten *Tubegauz* applicators, which range in size from 00 to 8. This table shows the range of applicators and the size of *Tubegauz* to be used with each. In sizes 1 to 8 the number represents the diameter in inches. No. 00 to 2 are all that are necessary for fingers and toes.

Applicator	*Tubegauz*	*Uses*
00, 0	No. 01	Infants' fingers. Adults' small toes. Adults' fingers and toes.
1, 2	No. 12	Adults' fingers and toes where extra pressure is required. Infants' hands and feet.
3, 4	No. 34	Infants' arms and legs. Children's arms and feet. Adults' small hands, arms, feet.
5, 6	No. 56	Adults' arms, lower legs, small thighs. Small heads.
7, 8	No. 78	Adults' legs, thighs and heads.

I should like to thank Mr. Patrick Clarkson, F.R.C.S., for the help and advice he has given me in writing this account of the new procedure in the Back Surgery.

Guy's Theatre Club

"BLACK LIMELIGHT"

THE Guy's Theatre Club is an entirely admirable and generous institution, of comparatively recent growth in the hospital community. It draws upon talent and interest from all parts of the hospital and medical school, and combines an almost professional standard of production and competence with a zest and enthusiasm for which every one of us must feel grateful, and of which we can all feel proud. Its members have tried their hand at a number of different types of play, and would seem to have discovered that while farce is a tricky proposition and light comedy an almost unmanageable one, straight drama, and particularly that version of it which leans heavily in the direction of melodrama as characterised by the thriller, is in many ways the easiest to portray effectively.

No one who has attended a number of their productions can fail to have been impressed by their readiness to experiment, by the number of actors and

actresses on whose services they can call, and by the high level of technical efficiency which they display in management, lighting, set designing, make up, and general production. It would be discourteous therefore to dismiss any offering of theirs with superficial goodwill alone ; they aim high, and deserve criticism as their right, as well as the praise which is their due, in any review which is given to them.

" Black Limelight " is an unmistakably dated thriller. The appearance of a resident housekeeper and a resident maid as members of the staff of a suburban villa makes this clear at the outset. It is not in the top class of thrillers, lacking both the tautness and cleverness of " Ten Minute Alibi " and the subtle characterisation of such recent offerings as " Dial M for Murder ". Characterisation is in fact its weakest point, the only well rounded character in the whole play being the tragic wife, who is at the same time the most conventional figure among the main parts.

After a slightly uncertain start, occasioned perhaps by the author's calculated air of mystery in presenting the opening situation, Audrey Waters got well under the skin of the unhappy Mrs. Charrington and gave a really admirable performance. Her handling of the difficult monologue in the Second Act, when she has to maintain a soliloquy while kneeling beside her exhausted and defeated husband, was truly masterly. As the husband, William Lund had an easier time in that the exigencies of the part called for no more than a sustained note of almost hysterical despair and remorse. He maintained it with little variation, and with no more bewilderment than may be appropriate in such a character.

Jeffrey Osborn as Lawrence Manfred, the family friend and trusted solicitor whom most people recognise in the First Act as the ultimate villain, had a more difficult job, because the author's failure to conceal from the audience the way in which his own mind is running leaves Manfred in the rather foolish position of having to act like a man of woodenly solid virtue, until the last act when he is suddenly revealed as being possessed by demoniac intentions for which the audience have been elaborately prepared. Mr. Osborn seemed happier in the First Act than he was in the other two, and since he was called upon to develop a character whose fate it was to become increasingly improbable, he had my sympathy.

The principle detective, played by John Cautley, was again presented with a part which never achieved personal solidity ; within his two dimensional framework as a C.I.D. man with a hard job and a human streak, he made the most of his opportunities. Dilys Lidiard, who has already revealed herself in a number of Theatre Club productions as an actress of unusual sensitivity and grace, had the preposterous part of comic relief in the form of the garrulous and facetious housekeeper, a family gem of longstanding and possessively maternal familiarity. Quite what an actress is supposed to do with a part of this kind, which is nothing more than a dramatic fiction designed as an outlet for the author's facetious impulses, seems an unanswerable question. It is at any rate a question which never receives any other answer but the somewhat robust but essentially convential interpretation, to which Miss Lidiard, with good will, surrendered. The other and smaller parts were patchily effective. Here again the newspaperman had an easier rôle than the surly subordinate detective, whose inexplicable truculence seemed to embarrass its portrayer without contributing to the plot. The production as a whole moved swiftly and surely ; nobody forgot a line, and the care and efficiency with which the show had been put together excited a warm and delighted response from the audience.

A critic who takes his job seriously must be prepared to appear captious ; but criticism must in one small particular be extended to the audience. When the producer requires a period of complete darkness during which tension has to be maintained, it is at best thoughtless and at worst childishly discourteous to light matches and giggle at the busy confusion on the open stage. Those guilty of this gaffe need to improve their theatre-going manners. The Theatre Club deserves well of its audiences.

D.S-C.

CORRESPONDENCE

LETTERS TO THE EDITOR OF THE GAZETTE

Pertussis

SIR,—I regret that I did not see Dr. Mac Keith's remarks on whooping cough which have made so unfavourable an impression upon Mr. Layton.

It is never very easy to follow Mr. Layton's arguments. "His reasons are as two grains of wheat hid in two bushels of chaff", and very good chaff, too. But if he denies the high mortality of whooping cough in the first year of life, his experience in the department of Otorhinolaryngology is not that of the Department of Child Health. The mortality is not so great as it was—babies are tougher nowadays—but it remains true that no trouble is too great to prevent, if possible, the spread of whooping cough to the baby of the family. If it contracts the disease in severe form its life is in danger, and even if it recovers, the illness is very distressing to the mother because of the alarming length of the spasms of apnœa.

Yours, etc.,

H. CHARLES CAMERON

Breast Feeding

SIR,—Congratulations on Dr. Mac Keith's splendid article on Breast Feeding in your issue of November 15th, and the wonderful pictures: but who is the funny little man in the Scotch cap with ribbons, page 448, figure 8?

Is it "The further education of Archie Andrews"?

Yours, etc.,

G. W. DRYLAND.

Kingston-on-Arrow,
Herefordshire.

Bed Rest

SIR,—I should like to take this opportunity of expressing an appreciation which I know to be felt by many others, for the masterly manner with which the subject of "Confined to bed" was dealt with in a recent clinical lecture. It surely is high time that the definition, purpose and results of bed rest were boldly examined at their very roots. The refreshingly audacious and witty attack on any presuppositions we may have had on the nature of bed rest, and the fearless exposure of many of its limitations, should do a great deal to widen our views on the subject which are all too frequently limited by the habitual floor angle from which we see our patients. It is very much to be hoped that the nursing staff for whom these questions are especially apt, and who most of all would appreciate the difference between the task of "traffic cop and car park attendant" in relation to patients, will have an opportunity to hear this lecture.

Yours, etc.,

G. H. DAW.

∴ *Dr. Charles Baker's clinical lecture, "Confined to Bed", will be published in the* GAZETTE *on 10th January,* 1953.—EDITOR.

REVIEWS

Forensic Medicine. Second Edition. By KEITH SIMPSON, M.D. Pages viii plus 344. Edward Arnold & Co. *Price* 21*s*.

The second edition of this comprehensive and popular book on forensic medicine will be widely welcomed by all medical students and practitioners. Several sections have been re-written, and new material introduced, keeping the book abreast with the most recent advances. In spite of the changes, the book has retained its conciseness, this edition being only ten pages longer than the first.

The chapter on war gases has been advantageously replaced by one on poisonous plants and fungi. Some thirty new plates have been incorporated in the text, some as additions and some replacing original photographs, and all the illustrations, which have clearly been chosen with great care, portray at a glance their pertinent features—a quality sometimes lacking in modern textbooks.

A working knowledge of forensic medicine is essential to all who practise medicine, especially general practitioners, and the present tendency in some Universities to lessen its importance is resulting in newly qualified doctors being less well equipped to deal with the everyday forensic problems which confront them. It is essential that practitioners should have available on the subject a textbook which is not only an accurate reference book, but one which is also easy to read and understand. Dr. Keith Simpson's book, in which the great majority of cases described are those with which the author has dealt personally, fulfills all these requirements, and should be on every practitioner's bookshelf. A.K.M.

Observations on the Early Public Health Movement in Scotland. By J. H. F. BROTHERSTON. London. H. K. Lewis & Co. *Price* 21*s*.

Intended, no doubt, primarily for Scotsmen, this book introduces so much matter of general interest, medical, historical, physiological and social, that the other member of the world's best example of symbiosis will follow his partner's story with deep attention. Dr. Brotherston writes well and clearly, takes great pains and is not long-winded. The great improvement in methods of agriculture, in diet and in standard of life that followed union with England are well described. There followed the misery and squalor of the industrial revolution, so eloquently foretold by the Scots poet Campbell, a change for which an agricultural people was quite unprepared, made still more appalling by the more than mediæval filth that prevailed in the cities. How resistance was overcome and how Scotland extricated herself may be read in Dr. Brotherston's pages. Progress was slow ; but today many Scotsmen find in Public Health a field well suited to their talents, and such men will take pride in the successful issue of this story. H.St.H.V.

Modern Trends in Gastro-Enterology. Edited by F. AVERY JONES. Butterworth. *Price* 105*s*.

This is a remarkably fine book. Disregarding as it does so easily those artificial barriers between medicine and surgery that, in both practice and research, have tended to persist far too long, it reveals a wealth of knowledge in a subject, sometimes dismissed as a speciality, which in fact by its very implications and ramifications tends to embrace so many branches of study. Apart, moreover, from the interest of the subject as such, there is the welcome feature in this book, so often lacking in these days of " professional " authors ; the various contributors are in fact writing from personal observation and experience. The result is a revelation. Not only have the various writers on the different topics been selected most felicitously but the arranging and editing is also superb. Add to that the standard of production for which Messrs. Butterworths are now renowned in this series and you have a tome which, despite its high nominal price, is very well worth while.

The undergraduate may not be able to afford it, but he should nevertheless read it. Thus he will achieve both up-to-date information and pleasant reading, for the style for the most part is easy. To the postgraduate it is almost indispensible and even to the established consultant, it will offer fresh views and much helpful advice. R.G.

Refresher Course for General Practitioners. London. B.M.A. 486 pp. *Price* 25*s.*

This book is a collection of 55 articles which appeared in the *British Medical Journal* in 1949 and 1950. The articles have been written by eminent British consultants on many different subjects. A practical approach has been adopted and this is particularly applicable to general practice. The general practitioner to use a well worn phrase, is the first line of medical defence. He is the first medical man to be consulted in case of illness in the vast majority of cases. His main concerns are :—

1. *Early diagnosis,* which is after all the whole basis of surgery and medicine. In general practice one has to rely almost entirely on simple clinical methods to establish diagnosis.

2. *Correct management of the patient.* A decision has to be made as to whether the patient is to be treated at home or referred to hospital. The reasons for the latter are :—

(*a*) Where special investigations, such as E.C.G., specialised X-ray techniques, etc., are necessary and where they cannot be carried out at home.

(*b*) Where special treatment is indicated, e.g., radiotherapy, major surgery and certain medical measures.

(*c*) Where the general practitioner requires a second opinion for making the diagnosis or needs advice on treatment.

(*d*) Where home conditions are unsuitable for the patient's welfare, e.g., in cases of old people living alone.

An up-to-date knowledge of recent advances in pathology, diagnosis and therapy is essential for the G.P. to be able to care efficiently for his patients at home.

In this book the peculiar conditions of general practice have been kept in mind and in all cases simple diagnostic methods are described and stress is laid on treatment which can be easily given without reference to hospital. In a book where all the material is of such a very high degree of excellence it is difficult to single out any articles for special mention. However, in order to give an idea of the general context, the following are the ones which particularly appealed to the reviewer :—

Management of the pneumonias, by Dr. J. G. Scadding.
Management of diabetes, by Dr. Wilfred Oakley.
Post-partum hæmorrhage, by Mr. G. W. Theobald.
Congenital heart disease, by Dr. Maurice Campbell.
Modern views on uræmia and dehydration, by Dr. D. A. K. Black.
Acute abdominal disease, by Mr. Zachary Cope.
Hypertension, by Professor Robert Platt.
The failing heart, by Dr. K. Shirley Smith.
Poliomyelitis, by Dr. W. H. Kelleher.
Management of the epileptic, by Sir Charles Symonds.

Although primarily intended for the general practitioner, this is a book which should also be especially valuable to the final year medical student. It will give him an up-to-date practical approach to the common diseases which he will meet when he qualifies—be it in hospital or general practice. The easy style in which the articles are written and the interesting subject matter make easy reading, and it is recommended to all students as revision for the finals. J.F.

Intravenous Anæsthesia in Dentistry. By S. L. DRUMMOND-JACKSON. Staples Press. *Price* 25*s.*

This book written by an experienced dental surgeon is a plea for the substitution of intravenous for inhalation anæsthesia for painful procedures in the dental chair. He reaffirms the two drawbacks of unassisted nitrous oxide and oxygen as a general anæsthetic : the dangers associated with oxygen

lack and the often unsatisfactory operating conditions. (These disadvantages of nitrous oxide have been recently stressed by Bourne, who advises a change in favour of the more potent gas, cyclopropane.)

The author does not point out the one fundamental difference between intravenous and inhalation anæsthesia. With inhalation methods should the patient stop breathing no more anæsthetic is absorbed, but with a needle in a vein it is possible to add further anæsthetic in the presence of respiratory arrest.

The whole matter is one of the safety of the patient. In experienced hands intravenous thiopentone given to a patient in the upright position in the dental chair can be safe : the writer of this review has used the intravenous barbiturates in this manner for the past twenty years without untoward results. But the technique bristles with difficulties and occasional anxieties. While it is the most comfortable method for the patient and provides excellent conditions for the operator, the anæsthetist does not always share this tranquility. It is surprising, therefore, to find Mr. Drummond-Jackson able to fulfil the dual rôle of operator and anæsthetist.

Four drawbacks have weighed against teaching the technique in the Dental Out-Patient Department. The possible difficulties of finding a vein, the judgment of the initial dose, the threat of laryngeal spasm and the uncertainty of the behaviour of the patient during the recovery period are definite disadvantages which are insufficiently stressed in this book.

The fitness of a patient to be anæsthetised in the dental chair is assessed by a critical appreciation and possible questioning of his medical history by the anæsthetist : the author omits to mention the possible risks when intravenous barbiturates are given to asthmatics, or those suffering from bronchiectasis.

The book is written for the practising dental surgeon, and its value to anæsthetic clerks is questionable until they have weighed the advantages and disadvantages of the older methods of inhalation anæsthesia. W.S.M.

Aids to Organic Chemistry. By IAN LESLIE. 4th Edition. Ballière, Tindall & Cox. *Price* 5*s.*

In this new edition several sections have been rewritten to bring material up to date and there is now more emphasis on molecular structure. For the student who has a grounding in the subject and who requires comprehensive notes clearly and concisely presented this neat little book is the answer. The only criticism is that practical details of the many preparations mentioned are almost completely excluded—but then this is no attempt to replace a course in organic chemistry. R.D.W.

Recent Additions to the Wills Library

Anderson, D. J. : *Physiology for Dental Students.* Arnold. 1952.
Anderson, T. McClurg : *Human Kinetics and Analysing Body Movements.* Heinemann. 1951.
Armstrong, J. R. : *Lumbar Disc Lesions.* Livingstone. 1952.
Atkins, H. J. B. : *After-Treatment.* 4th edn. Blackwell. 1952.
Bailey, Hamilton : *Clinical Surgery for Dental Practitioners.* Lewis. 1937.
Bailey, Hamilton, and Love, R. J. McNeill : *A Short Practice of Surgery.* 9th edn. Lewis. 1952.
Baldwin, Ernest : *Dynamic Aspects of Biochemistry.* 2nd edn. Cambridge Univ. Pr. 1952.
Beaumont, G. E., and Dodds, E. C. : *Recent Advances in Medicine.* 13th edn. Churchill. 1952.
Bett, W. R. : *The Infirmities of Genius.* Johnson. 1952.
Birch, C. Allan : *Emergencies in Medical Practice.* 3rd edn. Livingstone. 1952.
Bonney, Victor : *A Textbook of Gynæcological Surgery.* 6th edn. Cassell. 1952.
Brain, W. Russell : *Mind, Perception and Science.* Blackwell. 1951.
Bramwell, Crighton : *The Approach to Cardiology.* Oxford Univ. Pr. 1951.
Browne, Douglas G., and Tullett, E. V. : *Bernard Spilsbury. His Life and Cases.* Harrap. 1952.
Burrows, Harold, and Horning, Eric S. : *Œstrogens and Neoplasia.* Blackwell. 1952.
Christie, A. B. : *Infectious Diseases.* 2nd edn. Faber. 1951.
Ciba Foundation : *Isotopes in Biochemistry.* Churchill. 1951.

Ciba Foundation : *Liver Disease.* Churchill. 1951.
Clark, W. E. Le Gros : *The Tissues of the Body.* 3rd edn. Oxford Univ. Pr. 1952.
Coolidge, Edgar D. : *Endodontia.* Kimpton. 1950.
Crosse, V. Mary : *The Premature Baby.* 3rd edn. Churchill. 1952.
Daley, Raymond, and Miller, Henry : *Progress in Clinical Medicine.* By various authors. 2nd edn. Churchill. 1952.
Davidson, L. S. P. : *The Principles and Practice of Medicine.* Livingstone. 1952.
Douthwaite, A. H. : *Hale-White's Materia Medica, Pharmacology and Therapeutics.* 29th edn. Churchill. 1952.
Ellman, Philip : *Essentials in Diseases of the Chest.* Oxford Univ. Pr. 1952.
Evans, Sir Charles Lovatt : *Principles of Human Physiology.* 11th edn. Churchill. 1952.
Feiling, Anthony : *Modern Trends in Neurology.* Butterworth. 1951.
Fish, E. Wilfred : *Principles of Full Denture Prosthesis.* 5th edn. Staples. 1952.
Florey, M.E. : *The Clinical Application of Antibiotics. Penicillin.* Oxford Univ. Pr. 1952.
Gesell, Arnold, and Amatruda, Catherine S. : *Developmental Diagnosis. Normal and Abnormal Child Development.* Hoeber. New York. 1951.
Girdlestone, G. R., and Somerville, E. W. : *Tuberculosis of Bone and Joint.* 2nd edn. Oxford Univ. Pr. 1952.
Goodman, Neville M. : *International Health Organizations and their Work.* Churchill. 1952.
Guthrie, Douglas, and Stewart, John P. : *Logan Turner's Diseases of the Nose, Throat and Ear.* 5th edn. Wright. 1952.
Hall, I. Simson : *Diseases of the Nose, Throat and Ear.* 5th edn. Livingstone. 1952.
Hamilton, W. J., Boyd, J. D., and Mossman, H. W. : *Human Embryology.* 2nd edn. Heffer. 1952.
Higgins, Thomas Twistington : "*Great Ormond Street*" 1852–1952. Odhams Pr. 1952.
Holmes, Gordon : *Introduction to Clinical Neurology.* 2nd edn. Livingstone. 1952.
Illingworth, C. F. W. : *Textbook of Surgical Treatment including Operative Surgery.* 4th edn. Livingstone. 1952.
Johnstone, R. W. : *A Textbook of Midwifery for Students and Practitioners.* 15th edn. A. & C. Black. 1952.
Jones, F. Avery : *Modern Trends in Gastro-Enterology.* Butterworth. 1952.
Kennedy, Edward : *Partial Denture Construction.* 2nd edn. Dental Items of Interest. Brooklyn, N.Y. 1951.
Kretschmer, Ernst : *A Textbook of Medical Psychology.* (Translated from the 10th German edition). Hogarth Pr. 1952.
Lawler, Sylvia D., and Lawler, L. J. : *Human Blood Groups and Inheritance.* Heinemann. 1951.
McDowall, R. J. S. : *Handbook of Physiology and Biochemistry.* 41st edn. Murray. 1951.
McGehee, William H. O., True, Harry A., and Inskipp, E. Frank : *A Textbook of Operative Dentistry.* 3rd edn. Churchill. 1952.
McLaggan, J. Douglas, and Collier, Josephine : *Diseases of the Ear, Nose and Throat.* 2nd edn. Lewis. 1952.
Macintosh, R. R., and Bannister, Freda B. : *Essentials of General Anæsthesia.* 5th edn. Blackwell. 1952.
MacKenna, Robert M. B. : *Diseases of the Skin.* 5th edn. Baillière. 1952.
McKenzie, William : *Ear, Nose and Throat Diseases.* Livingstone. 1952.
Marshall, Sir Geoffrey, and Perry, Kenneth M. A. (Editors) : *Diseases of the Chest.* 2 vols. Butterworth. 1952.
Martindale : *The Extra Pharmacopœia.* 23rd edn. Vol. 1. Pharmaceutical Pr. 1952.
Mead, Sterling V. : *Anesthesia in Dental Surgery.* 2nd edn. Kimpton. 1951.
Moncrieff, Alan, and Thomson, William A. R. : *Child Health.* 2nd edn. Practitioner. 1952.
National Formulary. 1952.
Peel, Albert A. Fitzgerald : *Diseases of the Heart and Circulation.* 2nd edn. Oxford Univ. Pr. 1952.
Percival, G. H., Drennan, A. Murray, and Dodds, T. C. : *Atlas of Histopathology of the Skin.* Livingstone. 1947.
Queen Charlotte's Textbook of Obstetrics. 8th edn. Churchill. 1952.
Rich, Arnold R. : *The Pathogenesis of Tuberculosis.* 2nd edn. Blackwell. 1951.
Rogers, Sir Leonard, and Megaw, Sir John W. D. : *Tropical Medicine.* 6th edn. Churchill. 1952.
Romanis, W. H. H., and Mitchiner, Philip H. : *The Science and Practice of Surgery.* 9th edn. 2 vols. Churchill. 1952.
Ross, James Sterling : *The National Health Service in Great Britain.* Oxford Univ. Pr. 1952.
Salzmann, J. A. : *Principles of Orthodontics.* 2nd edn. Lippincott, Phil. 1950.
Sargant, William, and Slater, Eliot : *An Introduction to Physical Methods of Treatment in Psychiatry.* 2nd edn. Livingstone. 1948.
Scott, James H., and Symons, N. B. B. : *Introduction to Dental Anatomy.* Livingstone. 1952.
Sellors, T. Holmes, and Livingstone, J. L. (Editors) : *Modern Practice in Tuberculosis.* 2 vols. Butterworth. 1952.
Seward, Charles : *Bedside Diagnosis.* 2nd edn. Livingstone. 1952.
Simpson, Keith : *Forensic Medicine.* 2nd edn. Arnold. 1952.
Slater, Eliot, and Woodside, Moya : *Patterns of Marriage.* Cassell. 1951.
Smith, Homer W. : *The Kidney—Structure and Function in Health and Disease.* Oxford Univ. Pr. 1951.
Thoma, Kurt H. : *Oral Pathology.* 3rd edn. Kimpton. 1950.
Tredgold, A. F. : *A Textbook of Mental Deficiency.* 8th edn. Baillière. 1952.
Walshe, F. M. R. : *Diseases of the Nervous System.* 7th edn. Livingstone. 1952.
White, Paul Dudley : *Heart Disease.* 4th edn. Macmillan. New York. 1951.
Widdowson, T. W. : *Special or Dental Anatomy and Physiology and Dental Histology. Human and Comparative.* Vol. 1. Staples. 1952.
Willis, R. A. : *The Spread of Tumours of the Human Body.* Butterworth. 1952.
Wintrobe, Maxwell M. : *Clinical Hæmatology.* 3rd edn. Kimpton. 1951.
Wood, Paul : *Diseases of the Heart and Circulation.* Practitioner. 1952.
Wright, Samson : *Applied Physiology.* 9th edn. Oxford Univ. Pr. 1952.

SPORT

RUGBY FOOTBALL

Guy's *v.* London University
At H.O.P. Result : Lost 3—11
3rd December, 1952.

On a fine afternoon and muddy pitch Guy's lost this important match by a goal and two penalty goals to a penalty goal. Guy's were not at full strength ; notable absentees were H. C. Meredith in the pack whose line-out play was sadly missed and T. Smith at outside half whose sure handling under adverse conditions and nursing of the forwards would surely have turned the game in Guy's favour. As it was Guy's adopted the wrong tactics in trying to open up the play when the ball should have been kept close until near the University line. In the first half Hawley played at outside half and after the interval Howells took over, but alas, the three-quarters kept running across the field and the wings had no real chances until Kingston put in some dashes near the end of the game which unfortunately came to nought.

Until half time Guy's had the edge on the University and led at half time through a penalty goal to nil. The goal was kicked by Howells—the ball hit an upright on its way over.

After half time the University pack took it upon themselves to dictate matters and kept up a steady pressure on the Guy's line. From a scrum near the Guy's line a University forward dived over unmolested. The try was converted with a magnificent kick from the touch line. There were one or two determined dashes by Pook, Fairweather and Kirkbride but no tries resulted. Pook was unlucky to lose possession over the line when a try seemed certain. The three forwards previously mentioned were the stars of the Guy's pack and it was a pity they were not supported by the remaining forwards. The University pack were a united force in the loose whereas Guy's were never together.

ASSOCIATION FOOTBALL

A.F.A. Senior Cup

1st Round Proper

Guy's 1st XI *v.* Brentham 1st XI

Away. Result : Lost 4—6
29th November, 1952

Guy's made the journey to Brentham without three of their regular players, two absent through illness and one through an indefinable cause.

On a muddy pitch and amidst flakes of snow Guy's played down the slight slope but were quickly in arrears when the Brentham left wing rounded the back and shot into the corner of the net. This setback seemed to put real purpose and endeavour into the Hospital side and Harris, playing in the unaccustomed position of centre forward, equalised with a grand shot taken on the turn. With the Guy's attack on the hunt for more goals and the defence dealing adequately with the opposition it was no surprise when Lee scored after clever work by Cornhill on the right wing.

Just Before half time Oldfield on the left wing tried one of his pile drivers only to see the ball narrowly scrape the angle of the goalpost.

Immediately on the resumption Lee scored and quickly followed with a second to complete his hat trick.

4–1 up and 30 minutes to go and then a transformation in the Hospital's ranks. From an attacking, triumphant team into a hesitant, struggling one. A Guy's back cleared only to see the ball ricochet, as if fired from a cannon, into the net—4–2. The large home crowd, who had braved the elements and up to this point had watched their team beaten in all points of the game, rose to fever pitch and their surge of new-found enthusiasm was transmitted to their team and quickly bore results—4–4. A disputed goal made it 5–4 and the two Guy's supporters, both injured in previous games and unable to play, shouted encouragement, but valiantly as they tried, it was but a squeak to the lion's roar, and just on time Brentham made it six. To run the Division II leaders so close was a grand effort: to lose after holding such a commanding lead was disappointing but honour was done.

It is the policy of Guy's soccer officials to give everyone in the Hospital who desires to kick a round ball a game every week. One spectator after this match said it was the cleanest and best game seen on the ground this year, and that opinion seemed pretty widespread. If our pledge is fulfilled as it has been and this type of report is received from all the elevens as it has been, the club is justifying its existence to the Hospital.

We could be stronger still though if the odd member would realise that putting just a little more into the club than is taken out enhances its reputation and strength.

HOCKEY

Guy's 1st XI *v.* Merton 1st XI
At H.O.P. Result : Won 3—2
29th November, 1952

Guy's entertained a strong Merton XI at H.O.P. and won an interesting game 3–2.

Willis opened the scoring within two minutes when, following a nice bout of interpassing, he pushed the ball past the keeper into the net.

Merton equalised from a short corner, the ball being deflected into the net by a Guy's defender. Merton renewed their attack directly after the bully off and were awarded another short corner. This was well taken, only the presence of Hall in the corner of the net prevented Merton taking the lead.

After half time Guy's settled down and played some very attractive hockey, the inside forwards in particular combining well.

The hospital was awarded a short corner soon after half time and Willis passed to Millar who scored with a hard shot. Guy's were now on top and for a period completely dominated the play. Both wings came near to scoring, Cautley losing control of the ball with the keeper beaten, and then Cooke further increased the hospital's lead when, receiving a pass from Paul, he ran through, drew the Merton keeper and pushed the ball into an empty net.

Some end to end play now occurred in which the hospital backs consistently hit the ball accurately and hard and broke up many dangerous attacks. From one of these attacks Merton scored, and straight from the bully again ran through the Guy's defence, but Elsdon-Dew saved a hard shot on the goal line. Soon afterwards a penalty bully was awarded against Guy's which Tuddenham took and did well to save.

Guy's now renewed their attacks and several times were unfortunate not to score, but the Merton defence held firm until the final whistle.

Guy's owe this victory to being generally the faster team and to the encouraging way their inside forwards combined. The defence, although pierced on several occasions, made up for these mistakes by admirable covering and accurate hitting.

On this showing the hospital team has improved greatly since the beginning of the season and should be a well balanced team by the time the first round of the Inter-Hospitals Cup against St. Mary's is played on December 17th.

(Other results are held over until our next issue.)

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL

Applications are invited for an additional full-time **Research Fellowship** in the **Thoracic Surgical Unit** for research on cardiovascular problems. It is desirable that applicants should possess a higher qualification in Surgery. Salary will depend upon the experience of the person appointed. Applications with the names of three referees, should be sent to the Dean, Guy's Hospital Medical School, London Bridge, S.E.1.

Applications are invited for the post of **Registrar** (whole-time, middle grade) to the **Department of Diagnostic Radiology.** Applicants should hold the D.M.R. Duties to commence 1st January, 1953. The post will be subject the the Terms and Conditions of Service of Hospital Medical Staff in the National Health Service. Forms of application are obtainable from the Superintendent, Guy's Hospital, S.E.1., to whom applications with the names of two referees should be sent not later than **18th December, 1952.**

UNIVERSITY OF OXFORD

Doctor of Medicine

G. L. L. Reynolds

UNIVERSITY OF CAMBRIDGE

Doctor of Medicine

D. G. Vulliamy

UNIVERSITY OF LONDON

RECOGNITION OF TEACHERS

Faculty of Medicine

W. G. Cross, M.S., as Teacher of Dental Surgery (Periodontology) at the Institute of Dental Surgery.

ROYAL COLLEGE OF OBSTETRICIANS AND GYNÆCOLOGISTS

Diploma

G. F. Barnes
A. E. R. Buckle
K. V. Cooper
J. W. B. Dalgleish
E. C. Lewis

PASS LIST

UNIVERSITY OF LONDON

Third (M.B., B.S.) Examination for Medical Degrees

October, 1952

Honours

V. Ainsworth (Distinguished in Medicine).

J. Ernsting (Distinguished in Obstetrics and Gynæcology).

R. J. Shephard (Distinguished in Hygiene and Forensic Medicine).

Pass

C. P. B. Brook
P. J. Cook
M. P. M. Coupland
B. J. Cremin
L. M. Davis
E. C. Dawson
L. L. Emery
A. I. Fram
A. G. E. Fung-a-Fat
G. A. L. G. Glazebrook
D. J. Green
E. R. Herst
A. V. Large
J. G. Lymbery
E. A. Murray
Joyce D. Waye
R. A. J. Webb

Part I

D. P. Adamson
B. L. Anderson
F. A. F. Biddle
Anne Booth
P. D. Bowen
W. M. S. Boyd
C. E. Lay
E. R. Lester
G. L. Money
Joan M. Montague
M. A. Ness
J. S. Norell

M.B., B.S. Pass List (continued)

D. W. Breese
N. C. Brooks
R. Y. Calne
G. J. R. Clarke
T. A. P. Clarke
P. Cook
A. G. F. Dominick
D. V. Duckworth
J. R. Duke
P. G. Dunbar
G. Evans
R. H. Farrell
Sheila M. Forbes
R. C. Francis
I. C. Fuller
I. E. Gurner
D. Harris
P. O. Hirsch
E. C. Howarth
E. M. James
J. A. Jemson
G. J. John
J. W. Jordan
K. Kelly
Pamela M. Ordish
R. G. Orr
Nancy M. Page
Helen L. M. Partridge
J. H. Peters
J. D. Pryce
Margaret J. Purser
A. A. Roe
J. A. C. Rozario
K. Scott
S. C. C. Scott
Sylvia F. R. Smith
F. L. D. Steel
T. B. Stephen
M. K. Strelling
R. V. L. Thomas
A. D. Tuddenham
B. A. Tudgay
Lesley P. D. Tunnadine
J. L. Turk
D. J. Waller
R. Watts
Dorothy J. Whitney
K. J. Zilkha

Part II

P. M. Hardiman
F. G. M. G. Myer
F. E. N. Roper

Part III

E. M. James
A. G. McCallum

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

Final Examination

October, 1952

Surgery. Part I

M. D. Awty
D. L. H. Clark
Margaret F. Gill
S. S. R. Hooper
Elizabeth A. King-Turner
E. G. Lewis
T. Lloyd
T. F. Lougher
N. E. Malyon
D. U. E. Miller
C. B. H. Owen
G. Pearson
D. C. A. Picton
F. L. Richards
A. R. Sauvarin
R. Sharp
W. Sims
I. L. Thomas
M. F. Waboso
D. J. Wicker
P. G. Willis

Dental Surgery. Part II

A. Allison
E. J. Artes
D. E. Blake
E. F. Bosson
R. G. K. Burston
J. M. G. Cameron
F. L. Coker
G. A. Davis
P. N. Dawson
K. R. Dixon
M. F. Dixon
J. A. G. Dunn
S. W. Edworthy
A. Gibson
J. E. Gresham
D. R. Habberfield-Bateman
H. J. Halestrap
L. W. Kay
D. H. MacLeod
G. Maggs
H. C. F. Meyer
D. H. O'Flynn
A. G. Orme
R. H. Pownall
A. G. Prince
W. F. Reading
N. H. Reeves
E. P. Reynolds
C. F. M. Robinson
J. M. Scoones
A. T. Tarrant
D. J. Timms
G. H. Tucker
M. S. Tyrell
G. E. Wade
G. A. Watkins
C. W. White
R. W. Willcocks
G. M. J. Williams

SOCIETY OF APOTHECARIES OF LONDON

Final Examination

October, 1952

Pathology, Bacteriology and Forensic Medicine

D. P. Adamson
M. C. Batcheldor
Anne Booth
D. V. Duckworth
G. L. Feldmarj
Helen L. M. Partridge
J. H. Peters
J. D. Pryce
S. C. C. Scott
Sylvia F. R. Smith

Continued overleaf—

Society of Apothecaries of London Pass List (cont.)—

C. E. Lay — Lesley P. D. Tunnadine
E. R. Lester
J. S. Norell — D. J. Waller

Medicine

D. V. Duckworth — C. E. Lay

Midwifery

I. K. Nasr — A. Trenhaile

PAPERS BY GUY'S MEN

GUY'S HOSPITAL REPORTS

1952. Vol. 101

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Graham, Alexander J. P. Arterial Homografts : An Experimental Study. pp. 186–206.

Brock, R. C., and Graham, A. J. P. Resection of Combined Aneurysm and Coarctation of the Aorta with Insertion of a Homograft. pp. 207–215.

Osborn, D. A. Adenoma Arising in an Adrenal Cortical Rest. pp. 216–221.

Hooper, J. M. D. An Unusual Case of Gargoylism. pp. 222–228.

Graham, Alexander J. P. False Aneurysm of the Pulmonary Artery after Pneumonectomy. pp. 229–232.

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Brock, R. C. One Hundred Volumes of Guy's Hospital Reports. pp. 235–250.

Thorne, M. G. Cushing's Syndrome Associated with Bronchial Carcinoma. pp. 251–272.

Enticknap, J. B. An Analysis of 1,000 Cases of Cancer with Special Reference to Metastasis. pp. 273–279.

Laws, John O. Adrenal Cortical Dysfunction Leading to Crisis in Simmond's Disease. pp. 280–292.

Brown, Austin. Fractures of the Femoral Neck Treated by the Smith-Petersen Nail. pp. 293–301.

Shaw, A. Batty. A History of the Study of Tuberculosis among Medical Students and Nurses. pp. 302–312.

Bishop, P. M. F., and another. The Endocrine Treatment of Dysmenorrhœa. *Proc. R. Soc. Med.*, 1952, **45**, 803.

Blaikley, J. B., Lederman, Manuel, and Lewis, T. L. T. Results of Treatment of Cancer of the Cervix. *Lancet*, 1952, ii, 950.

Enderby, G. E. H. Hypotensive Anæsthesia in Surgery. (Lecture delivered at the Royal College of Surgeons of England.) *Ann. R. Coll. Surg. Engl.*, 1952, **11**, 310.

Everall, John, and another. Ineffectiveness of Local Applications of Adreno-Cortical Steroids in Preventing Effects of Ultraviolet Rays on Human Skin. *J. Invest. Derm.*, 1952, **19**, 97.

Falconer, Murray A. The Future of Surgery in the Treatment of Spontaneous Cerebral Hæmorrhage. *Lancet*, 1952, ii, 945.

Lane, Ronald E. Blood Changes in Industrial Disease. *Brit. J. Indust. Med.*, 1952, **9**, 245.

Macintosh, R. R. Aspects of Nitrous Oxide. *Brit. Dent. J.*, 1952, **93**, 234.

McKeown, Thomas, and another. A Note on the Sex Ratio in Anencephalus. *Brit. J. Soc. Med.*, 1952, **6**, 265.

Papers by Guy's Men (cont.)—

McLean, John W., and another. A Clinical and Pathological Evaluation of a Sulphinic Acid Activated Resin for Use in Restorative Dentistry. *Brit. Dent. J.*, 1952, **93**, 255.

O'Gorman, G. Discussion : Psychoses in Childhood. *Proc. R. Soc. Med.*, 1952, **45**, 800.

Robson, J. M., and Goulding, Roy. Discussion on the Toxic Effects of Streptomycin and Dihydro-Streptomycin on the Acoustic and Vestibular Systems. [Abstract.] *Proc. R. Soc. Med.*, 1952, **45**, 777.

Thompson, A. Ralph. Homer as a Surgical Anatomist. [Abstract.] *Proc. R. Soc. Med.*, 1952, **45**, 765.

Wheatley, David. The Treatment of Otitis Media. *Med. Illus.*, 1952, **6**, 443.

Wright, E. A., Morgan, R. S., and Wright, G.P. The Rate of Escape of Proteins following their Injection into the Anterior Chamber of the Rabbit's Eye. *J. Path. Bact.*, 1952, **64**, 461.

CHANGES OF ADDRESS

R. E. Irvine, M.B., B.Ch., M.R.C.P., 13, Claremont Place, Newcastle-upon-Tyne, 2.

P. H. Lomax, M.R.C.S., L.R.C.P., D.T.M. & H., Revenue House, 7, Poultry, London, E.C.2.

D. C. Turk, B.M., B.Ch., M.R.C.P., 22, Dudley Road, Wimbledon, S.W.19.

BIRTHS

COPLANS.—On 9th November, 1952, at King's College Hospital, to Margaret Joan (née Burns), wife of Michael Philip Coplans, M.B., B.S.—a son (Christopher Michael).

EMERY.—On 30th November, 1952, at Guy's Hospital, to Beryl (née Davis), wife of Leonard Emery, M.B., B.S.—a son (Paul).

LIPINGTON.—On 4th December, 1952, at Guy's Hospital, to Patricia Mary (née Morrison), wife of D. M. Lipington—a son (Timothy).

ROSEVEARE.—On 28th September, 1952, at Paignton Hospital, to Barbara (née Webb), wife of T. A. Roseveare—a second son (Nigel Thomas).

RUSSELL.—On 5th December, 1952, at Hartlepools Hospital, to Isabel, wife of Frank Russell, M.R.C.S., L.R.C.P., D.A.—a son.

MARRIAGES

SHIPCOTT — QUAINTANCE. — On 22nd November, 1952, at the Baptist Church, West Wickham, Kent, Frank Richard Shipcott to Celia Alice Quaintance.

WILDERSPIN—COLES.—On 15th November, 1952, at Goathurst Parish Church, Somerset, Kenneth Wilderspin to Rosemary Anne Coles, M.C.S.P.

WOLFSOHN — GOLDSTEIN. — On 22nd October, 1952, at Pretoria, South Africa, Wally Wolfsohn, L.D.S., R.C.S., to Annette Goldstein, of 100a, Main Road, Parow, Cape, South Africa.

DEATHS

ASPINALL.—On 11th October, 1952, Guy Richmond Aspinall, L.M.S.S.A., of Marsden, near Huddersfield, Yorks.

BARBER.—On 10th October, 1952, Arthur James Barber, L.D.S., R.C.S., of Beauregard, Guernsey, C.I.

EDS. { E.E.D.T. R.D.W.

GUY'S HOSPITAL GAZETTE

A JOURNAL OF MEDICINE, SURGERY, DENTISTRY AND HOSPITAL NEWS

PUBLISHED FORTNIGHTLY

Vol. LXVI. No. 1681 *27th December* 1952 *One Shilling*

PASSIM

IN our editorial office above St. Thomas's Street there is an imaginary article of furniture. This period piece (for indeed it is now in its 81st year, and that is a substantial span of time where medical journals are concerned) is the *Editor's Chair*. In company with a Directors' Board, a Table of Fares, a Pillar of Society or an Umbrella of Antibiotics, its characteristic is to be at one and the same time essential yet illusory. Every editorial statement, profound, obscure, or frankly ridiculous is considered to have been inspired from the comfortable fastnesses of this carpenter's dream.

When we came to our office some months ago we looked for this chair. We thought perhaps, that, vested as we now unquestionably were with the responsibilities of our appointment, the *Editor's Chair* would, in a way hitherto denied us (and in some manner we had till then been unable to understand) reveal itself in a distinctive and unmistakable fashion. We might, we reflected, trip over its massive insubstantial leg on the way to our desk and, projected suddenly to the floor, make due obeisance to its mythical authority. Such initiation was, happily, not demanded of us. We might again, arrive unscathed at its celebrated fastness only to discover (as we had on occasion imagined) that its two soundest legs were those attached behind, and that the most comfortable position for the occupant could be maintained only by strong extension of the lower limbs in such a way as to support the heels on the desk in front. Such acrobatic ability is, we are gratified to disclose, not an essential feature of life in our office here. Indeed we regularly sit on an example selected from at least four ordinary every-day chairs, and one of these supports us now. What we say and what may be inspired in us as we sit here is, likewise, ordinary every-day sentiment.

So it is that in this Christmas issue of the *Gazette* we offer to all our readers the good wishes of the season, warmly, simply, candidly. Guy's Hospital celebrates Christmas again this year in the manner which, by long tradition, has become part of our life here. The decorations, the trees, the lights, the carols, are all in themselves tokens commemorating the first event in the Christian year. But they have a special part to play here : they bear an unspoken companionable wish from us all to those who, through misfortune, accident, or the hazards of the passage of years, are patients under our care, unable to go home at Christmas time. In so far as we speak in these pages for those who work at Guy's Hospital—in whatever capacity that work may be undertaken—we extend to these sick members of our large family a Christmas greeting of cheer and hope, not from some insubstantial aloof *Editorial Chair*, but as an individual, personal message of good will, and thus through them, to us all :

A MERRY CHRISTMAS
AND
A HAPPY NEW YEAR

We should like to offer our congratulations to Miss Margaret Marson, at present Assistant Matron in charge of the Guy's unit at Orpington.

Miss Marson has recently been appointed Matron of the West London Hospital, Hammersmith, and will be leaving us to take up this appointment early in the New Year. We send her our very best wishes.

It is not often that patients in the wards have an opportunity of contributing to the *Gazette*. Now is their chance. In our next issue we intend to give, as usual, a description of the decorations and other festive activities in the wards this Christmas, and it occurred to us that there would be great interest in hearing the patients' view point too. The *Gazette* this year is therefore offering two prizes of one guinea each for the best accounts by a man and woman patient on " Christmas Day in My Ward ". We are grateful for the full co-operation of sisters in charge of wards and their staff in organising this little competition, and we look forward to publishing the best results in our next issue.

Mr. John Hunt's drawings are already familiar to readers of some previous editions of *Pulse* for which he produced many distinctive illustrations two or three years ago. The other day he drew for us the picture opposite, which well combines fact and symbol in the spirit of the Christmas season.

December

ACADEMIC

29th	12.00.	Mr. H. H. Kenshole. Dental Clinical Lecture. " Forensic Dentistry." Anatomical Theatre.
	1.00.	Dr. Carter Braine. Clinical Lecture.
1953 January		
		Exhibition. Surgical Department. " Fractures."
2nd	1.00.	Dr. Baker. Clinical Lecture. " Bronchitics in the Fog."
	5.00.	Surgical Department. Film :— " Appendicectomy by the ' Gridiron ' Approach." Clinical Theatre.
7th	5.00.	Clinical Conference. York Clinic.
8th	1.00.	Mr. Wass. Clinical Lecture. " Acute Appendicitis in Children."
	5.00.	X-ray Meeting. Gordon Museum.
	5.00.	Mr. Murray Falconer. Neurosurgical Demonstration. Clinical Theatre.
9th	1.00.	Dr. Hampson. Clinical Lecture.
	2.15.	Combined Round. Preclinical Classroom.
	4.45.	Department of Child Health. Films :— " Occupation Centre, Leeds ", " Triumph over Deafness ", " Out of the Night ". Pathology Classroom.
10th	10.00.	Professor Rob of St. Mary's Hospital. Departmental Round. Clinical Theatre.
12th	1.00.	Dr. Harris. Clinical Lecture.

1953 January

SOCIAL

9th	8.00.	The Clubs' Union Annual Ball. Park Lane Hotel.

CHRISTMAS GREETINGS TO ALL OUR READERS

Some Observations on So-called Water-Divining

By G. A. M. LINTOTT, M.D., M.R.C.P.

This paper, which first appeared in the GAZETTE *in June* 1933, *is reprinted in response to many requests. Dr. Lintott was, at that time, a part-time demonstrator in the Department of Physiology. He was appointed an Assistant Physician shortly before war broke out, and his death on active service in Egypt in* 1940 *cut short a career of exceptional promise.*

FROM Biblical times up to the present day there have always been certain people who have claimed, rightly or wrongly, to possess the capability of detecting subterranean water. During the last few months this so-called power has received much notoriety in the popular press, which has scarcely enhanced the reputation of the alleged phenomenon, shrouded as it is already in an atmosphere savouring not a little of the supernatural. Nevertheless, for a practice such as this to have existed for so many centuries and still to be firmly believed in by its exponents—commonly known as dowsers—at least suggests that there may be an element of truth in their claims. There has been, apparently, little or no scientific enquiry into the matter. This is, perhaps, explainable, for the somewhat spectacular method of elicitation of the phenomenon, together with the web of mystery that surrounds it and the ready opportunity it offers for exploitation by quacks, is apt to divert investigation from a subject which may have been considered hardly respectable. It was decided, therefore, to conduct a careful inquiry into the matter which, it was hoped, would result either in justification of the dowsers' assertions or in the exposure of the whole affair as a fraud.

The investigation originated in, and has subsequently been conducted in, an atmosphere of the profoundest scepticism. Any positive results that might be obtained were to be regarded as capable of explanation on a purely physical basis. Nothing in the nature of the miraculous was to be accepted.

It is necessary, first of all, to explain the manner in which this so-called water-divining is usually carried out in this country. A forked twig is most commonly used. A hazel branch is usually selected, but there is nothing specific in this, and a twig of privet or other suitable shrub may be employed. The length of the limbs of the twig varies according to the personal taste of the user. As a rule they are approximately 16 inches long, the maximum diameter being about that of an ordinary lead pencil. The extremities of the twig are firmly grasped one in each hand, the latter being in the fully supinated position. The apex of the twig is thus held away from the body, its long axis being kept horizontal with the ground. The limbs are held a certain distance apart in order to exert a degree of tension in the muscles of the hands and forearms. The dowser then walks, usually with rather a shuffling gait, over the ground to be investigated. When he passes over subterranean water it is alleged that the twig rotates upwards, the distal end thus describing an arc of a circle.

Another method, though less frequently used than that described above, is for the dowser to use two L-shaped metal rods. The shorter limbs are loosely held, one in each hand, in a position midway between pronation and supination. The arms are held out in front of the body with the two longer limbs of the rods about a foot apart, parallel with one another and horizontal with the ground. In this case it is stated that on passing over water the rods rotate inwards so as to cross one another, returning to their original positions as the holder leaves the water-containing area.

With a view to substantiating or giving the lie to these claims a series of experiments was undertaken in the Physiological Department at Guy's Hospital and out in the country. In the former case an apparatus was constructed so that water might run in a pipe beneath a platform, both without the knowledge and out of sight of the observer. As emphasised above, all the experiments were carried out in a strong spirit of scepticism and under critical observation. Where possible, control experiments were made.

It was essential, in the first place, to determine whether there was any evidence that certain people did possess this power of divining water. Accordingly, a number of persons were provided with twig or rods and asked to see if they could detect water beneath the platform. The flow of water was turned on and off without the observers' knowledge. After a number of people had been tested in this way it became evident that there was no response on anybody's part to water that was not running. With the water in the pipe flowing, people could be roughly divided into three main groups—those who were in no way sensitive to moving water and in whose hands both twig and rods remained completely inert even when standing directly over the pipe ; those in whom a definite though slight response was elicited when the flow of water was comparatively large (and in this group the rods seemed to be a more delicate indicator than the twig), and, finally, a small group of persons in whom there seemed to be definite evidence of marked sensitivity to moving water, as shown by an immediate upward movement of the twig or inward rotation of the rods on passing over the pipe in which the flow was even relatively small. Moreover, people in this group were able to localise the position of the hidden pipe within two or three inches.

Attempts were deliberately made to trap the observers, particularly those of the last group. Thus they were frequently asked to try and localise the pipe when no water was running, when water was running from other taps in the room, etc. It was found, however, that as long as the concentration of the observers remained undisturbed the percentage of errors was extremely low. Further experiments were conducted out of doors, in which sensitive persons unfamiliar with the neighbourhood were required to map out the courses of unseen drains in which water was flowing and also determine the sites of springs the presence and localities of which were unknown to them. Again the consistency and accuracy of the responses were striking features.

From these preliminary experiments it became evident that there might, after all, be more than an element of truth in the dowsers' claims.

If the twig and rods do move in the hands of sensitive persons, and it seems they do, then it is clear that this movement is conveyed to them by the holder. The belief in miraculous evolutions of either is quite unnecessary.

It accordingly became necessary to investigate three main features—firstly, the motor power conveying movement to the twig ; secondly, the receptive agent by which the dowser becomes subconsciously aware of the presence of running water ; and thirdly, the physical means by which communication is established between the water and the receptor.

In regard to the first factor the following observations shed some light on he initiation of the movement in rods and twig.

If the observer wore moderately thick gloves no response was elicited. When only one hand was gloved then the rod in the contra-lateral hand showed the usual inward deviation, the other remaining stationary.

If thin surgical rubber gloves were worn both rods and twig reacted in the usual manner.

Again, if the short limbs of the rods were held in sockets so that their free movement was permitted but there was no actual contact between them and observer's hands, no movement occurred.

It must be pointed out that no obvious naked-eye movements could be detected in the dowsers' hands or forearms which might start the indicators moving. However, if his forearms were felt while he was operating, a definite increase in the tension of the muscles could be recognized.

It appears then that the motive power conveyed to the twig and rods results from an increased tone which occurs in the muscles of the hands and forearms as the operator passes over flowing water. There is no change of tone detected in these muscles if the necessary indicators are not held. Thus the twig and rods serve a dual purpose. Firstly, by reason of the way in which it is necessary to hold them the muscles of the upper limbs are automatically put in the correct state of tension, and secondly, the movement

induced in them by the muscular change invoked in a sensitive person indicates when the observer is standing over water that is moving.

There was no reason to suppose that those of the upper limbs were the only muscles affected. It was found that if a dowser held a rubber bulb in his mouth, biting on it lightly so as to secure the necessary tension, and then walked over the pipe there was a definite increase of tone in the masseter muscles. This, of course, caused a diminution in the volume of the bulb, and, by connecting it to a tambour, a tracing was obtained which showed definitely the point at which the observer passed over the water.

The elucidation of the receptive agent in the body provides much greater difficulty. In an attempt to solve this mystery the following experiments were performed.

Firstly, it was noticed that it was the portion of the observer's body, usually of course, the feet, which was in contact with the ground that was the important factor. It was not until one of these was over the water that any response was obtained. Thus it did not necessarily depend on the twig or rods themselves being held over the water.

The observer was blindfolded to exclude the possibility of any visual reception. This made no difference to the usual response. The nose and ears were occluded in turn, but again without effect.

It had been noticed that experienced dowsers adopted a shuffling or spastic gait, which gave the appearance that they were voluntarily increasing the tone of the muscles in their lower limbs in an attempt, as it were, to tune themselves in for the reception of the stimulus. This was tried, and seemed to produce a more sensitive state. What was of more interest was that if an observer was wheeled or carried over the pipe so that his legs were dangling and muscles flaccid there was no movement of the twig. When the same person was wheeled over the water, while standing on the vehicle, the response was as great as if he had walked along the platform. The same observations were noted also in several different people out of doors over an area in which moving water was known to exist. The results obtained were exactly the same.

That the feet were not the only means of reception was demonstrated by an observer " walking " across the platform on his knees. When over the water a definite response was obtained. Similarly, a firm hand-grip on a pipe in which water was running increased the tone of the masseter muscles. Again, resting one foot lightly on the pipe caused no response in the twig, but, immediately weight was brought to bear on the foot, thus necessitating contraction of the muscles of the limb, there was the usual upward movement of the indicator.

This apparent necessity for a certain degree of tonic contraction of the muscles in order that a person might be in a sensitive state was borne out by the following experience. An observer who might be classed in the second of the groups described above, having given definite responses with rods on several previous occasions, attempted at a subsequent date to do some further experiments. He had been extremely busy during the preceding week with little sleep and much physical and mental strain, and felt thoroughly " out of sorts ". On this occasion he was quite unable to detect the presence of flowing water. His blood pressure was taken the systolic being 115 mm. Hg. whereas normally it is about 145 mm. Hg. He was given ephedrine gr. 2, which had little or no effect on his blood pressure but banished the feeling of lassitude, and he became receptive again.

Another important factor in the reception of the stimulus is the concentration of the observer. Persons in whom the sensitivity to water was well marked made a moderately large percentage of errors when their attention was distracted while they were operating, by sudden unexpected noises or by the platform being placed in a precarious position so that there was imminent risk of their being precipitated on to the floor.

Fatigue seems also to play a definite part. Thus towards the end of an afternoon spent in dowsing the responses were not elicited so easily or so markedly as in the early hours of the same afternoon.

Another interesting observation made was that if the observer, no matter how sensitive, walked on a smooth slippery surface, such as glass, polished metal, etc., there was no reception of the stimulus. That this was due entirely to the effect of the smooth surface and not to any specific property of the metal or glass was shown by interposing the materials between the pipe and the platfrom, when the normal response was obtained—as it was if the smooth surface was covered with a duster so as to give a grip to the feet. Other substances with a comparatively rough surface, for example, lead, asbestos, sheet rubber, etc., did not damp down the stimulus at all, and, if anything, exaggerated it. Similarly, the wearing of rubber boots had no tendency to abolish the response.

The exact nature of the receptor has not yet been determined. That it is intimately connected with muscle tone and thus with the reflex arc responsible for this, seems fairly certain. After all, it was only comparatively recently that the muscle spindles were discovered, and still more so that the function of the carotid sinus as a receptive agent was realized. May it not be then that the human body is possessed of yet another sensitive receptive organ which responds to a stimulus emanating from running water ? That the degree of sensitivity of this receptor varies in different individuals is quite in keeping with physiological views.

There remains the third factor—the nature of the communication between the water and the receptor in the body. Up to the present time investigation along these lines has proved fruitless. It is only possible to record various observations that have been made.

An attempt was first made to screen off the physical factor that must emanate from the stream of water. Such substances as lead, glass, brass, aluminium, rubber, asbestos, etc., were interposed between the pipe and the platform. Apart from the effect in the case of smooth surfaces described above, no damping down of the stimulus was noted.

Again, depth did not appear to be a factor. Comparatively small springs could be detected at a depth of several hundred feet ; in fact, it was found impossible to forecast the depth at which the water was likely to be found. The amount of water present also could not be estimated, although, of course, the width of a spring could be determined.

An air space was no barrier to the passage of the stimulus. An observer walking along a plank arranged over an excavation eight feet in depth was able to elicit a response and accurately to localise a narrow flow of water. Further digging revealed the stream of water, which was a leak through a pond head, in the position indicated.

At present the nature of the stimulus has not been discovered. It is suggested that the running water may give off waves to which some receptor in the body is sensitive. It is felt, however, that whatever the nature of the communication between the water and the dowser may be, it is a purely physical process, and with further investigation it should be possible to determine its exact nature.

During the past week three observers endowed with the necessary sensitivity and possessed of no special geological knowledge visited a certain site in Sussex and attempted, by means of the hazel twig, to detect an area of subterranean moving water. Each operated entirely independently, accompanied only by an impartial witness. It was very significant that each marked out exactly the same spot in the field, although quite unaware of the site chosen by his colleagues. Later, when the same observers were blindfolded, they identified exactly the same spot. During the course of the next few weeks a trial bore-hole is to be sunk in the selected area, and it will be interesting to see the result. Of course, it would be nice to sink a correspondingly deep bore-hole in an adjacent area in which the twig did not respond. The high cost it would entail prohibits this control experiment. Nevertheless, if a supply of several hundred thousand gallons of water per day is obtained from a well sunk at this point it will at least be suggestive evidence in favour of the genuineness of dowsing. A well sunk on chance, unless it happens to hit a spring, is unlikely to collect anything more than surface water, as so many people know to their cost.

In conclusion it must be stated that this paper simply consists of an account of a preliminary investigation and some original observations on the phenomenon of water-divining, prompted by a discussion at a meeting of the Guy's Physiological Society. No literature on the subject has been consulted, the reason for this being that, in view of the sceptical attitude which has been adopted to the whole affair, it was thought desirable first to undertake experiments which would be untainted by any bias arising from the knowledge of previous observations ; thus an opinion could be formed as to whether or not the subject was worth pursuing further.

We consider that undoubtedly it is. Accordingly a further attempt is to be made to identify both the receptor and the nature of the physical communication between moving water and this receptor.

We should be most grateful for any observations, advice or criticism from persons possessed of this sensitivity to water. Quite apart from its practical application, water-divining provides for those capable of performing it a fascinating pastime. Moreover, it seems not unreasonable to assume that the elucidation, should it be achieved, of the mechanism by which the phenomenon is produced may open up a new vista in the study of the human body's reception and response to stimuli.

SUMMARY

1. An investigation was made into the question of so-called water-divining in order to find out if there was any evidence to substantiate the claims made by dowsers that they were able to detect the presence of subterranean water.

2. In our observations it was found that, whereas no person tested could detect the presence of still water, yet there were people who possessed sensitivity to moving water to a varying degree. The persons tested could be classified in three groups :—

i. Those completely insensitive.

ii. Those in whom the sensitivity was present but not marked, and in whom it varied from time to time, being most evident when they were in a state of physical well-being.

iii. Those in whom marked sensitivity was constantly present.

3. The twig and rods simply act as indicators and also as the means whereby the correct state of muscular tension is achieved. This explains why different observers use different thicknesses or strengths of twigs, it simply being the outward expression of a subconscious desire to get the muscular tension to the optimum state in each individual case.

4. Three factors are thought to be concerned in the production of the response—a stimulus, the nature of which is unknown and which emanates from running water ; a receptive organ in the body, the sensitivity of which seems to be intimately connected with muscle tone ; and lastly, the motor force which results in movement of the indicator used, and this, it appears, is a change of tone in the muscles of the hands and forearms.

5. It is felt that the reception of the stimulus and the production of the response is a subconscious affair concerned with the more primitive centres rather than the cerebral cortex.

6. It is considered that there is sufficient evidence to justify the statement that water-divining is a genuine phenomenon, and further investigation is required for the elucidation of the exact method of its production.

I am greatly indebted to Professor Pembrey for all his helpful advice and criticism and for the time and trouble he has expended in the carrying out of experiments both in the Physiological Department and down in the country. My thanks are also due to Mr. W. J. Ferguson for his help and the numerous observations he has made.

The Methods of Restoring the Partial and the Complete Loss of one or more Anterior Teeth

By GRAFTON MAGGS, L.D.S., R.C.S. (ENG.)

(*Concluded*)

(*c*) *The Complete Veneer Porcelain Jacket Crown.* This preparation differs from the above in that the collar extends all the way around the tooth. Details of the impression and technique are described in Tylman[11]. Great experience is required in producing first a crown that fits, and secondly, a good æsthetic result. Only a great deal of practice can give this skill.

This method of crowning is beginning to return to favour again in spite of its technical difficulties. This is due to the disappointments of the acrylic resins. The porcelain crown is a strong preparation and is excellent æsthetically. An added advantage is that there seems to be a lesser tendency for the gum margin to become discoloured as is so often seen with acrylic facings.

(*d*) *The All-Acrylic Crown.* This preparation is the same as for the porcelain crown. Impression and bite are taken and from the resulting models the crown is built in wax and processed in acrylic. When first fitted, no one can deny that the results are amazingly good but, alas, soon deteriorate. This is due to the elasticity of the material, which causes the cement margin to crumble and leak. This leads to stagnation, bacterial fermentation and caries. Recently the author replaced two such crowns on the upper central incisors. The crowns had been in place four years. They were badly discoloured and upon removal, caries was found in the cervical regions of both preparations, fortunately not involving the pulp. The teeth were restored with two gold-backed acrylic crowns. Conclusions can therefore be drawn from the above regarding this method. The author feels it has no real place amongst permanent crowning techniques. Where expense has to be considered, however, this is the only crown that can be constructed cheaply. Bearing in mind what can happen, the operator should warn the patient of the possible consequences before undertaking such a restoration.

2. *The Post Crown.* This type of crown is used where the pulp is dead and successful root canal therapy has been undertaken. As a general rule, any remains of the crown are stoned away, a jacket type preparation not being favoured. This is due to the crown becoming brittle following devitalisation. Hence use is made of the root canal to accommodate a suitable post as retention for the crown. The following methods have been tried by the author :—

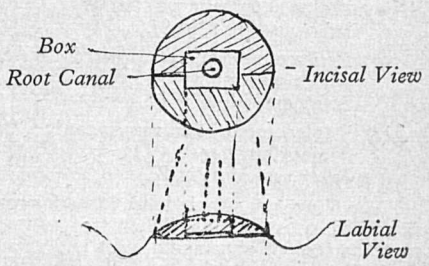
(*a*) *Gold-Backed Acrylic Post Crown.* Armed with the X-rays of the root-filled tooth, the operator can start the preparation. Remains of the crown are reduced to the level of the interdental papillæ. With diamond instruments the preparation is cut as shown in the diagrams. The root canal is then prepared to receive the post. Using a straight handpiece and with continual reference to the X-rays, a small fissure bur is used to drill up the canal. The depth aimed at should be at least equal to the

Stages in Preparation of a Post Crown

Proximal View

Labial View

The Box



height of the future crown or ideally, two-thirds of the way up the canal. The post of platinised gold wire is selected and tapered at the tip. It should fit fairly firmly. To prevent rotation of the finished crown a box is cut in the occlusal surface to act as a lock. It is cut to a depth of approximately one third the depth of a fissure bur. The post is inserted in the canal and impressions are taken. As before, plaster and wax is used for a localising impression, a duplicate post being used in the root canal. The technique is now the same as for the acrylic/gold jacket preparation, the gold being cast upon the post.

(*b*) *The Gold-Backed Porcelain.* This method is similar to the above. A porcelain facing of suitable shade and mould is selected and the backing is waxed up in the same way as for the corresponding jacket preparation. The backing is cast, the porcelain facing cemented on and the crown cemented in place. This method is now favoured by the author.

A modification of the above techniques is as follows :—

Instead of the post and crown portions being in one piece, they can be constructed in two parts. A wax pattern is built up on the post and model so that it resembles a jacket crown preparation. This is cast, replaced on the amalgam model and the remainder of the crown waxed up as if for a jacket crown. When completed, the post and gold core is cemented in place and upon this the jacket portion. The big advantage of this method is that should the facing need replacing there is no need to remove the whole of the preparation, but only the jacket portion.

Many other types of crown are in use as described in Parfitt and Herbert, Tylman and similar textbooks. Modifications appear at regular intervals, e.g., by Laughton and Myers[12] to name but one.

B. Restoration of the Complete Loss of One or More Anterior Teeth.

Many factors must be considered by the operator and the patient before deciding which method will be carried out to restore the complete loss of anterior teeth, i.e., a bridge or a denture. The factors to be considered are :—

1. Time and expense—replacement by a bridge being a consumer of both.

2. The type of patient—co-operation, occupation, etc., must be considered.

3. The state of the mouth—what teeth are standing and their condition, etc.

Having reached the decision with the patient, operative work is commenced.

(i) *Restoration by Bridges.*

The author will only describe those bridges of which he has had experience and the types of abutment in general use for anterior restorations.

Where the restoration is small, for example, to replace one tooth, the author favours the fixed/moveable type of bridge, if possible. The stronger tooth being the major fixed abutment and the smaller tooth carrying the inlay and moveable joint. For example :—

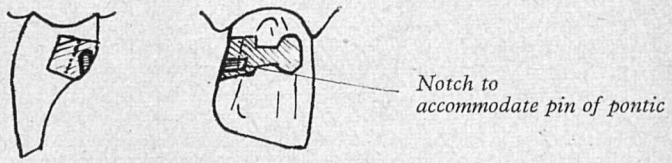
(*a*) Replacement of an upper central incisor, say 1/.
Major abutment will be /1.
Inlay and joint in 2/.

(*b*) Replacement of upper lateral incisor, say 2/.
Major abutment will be 3/.
Inlay and joint in 1/.

(*c*) Replacement of an upper canine, say 3/.
Major abutment will be 4/.
Inlay and joint in 2/.

The above are simple basic ideas for restoration of single teeth : variations, of course, must occur. When two or more anterior teeth are missing, many combinations of abutments exist and many different methods of constructing the bridge are available.

Small Inlay in an Incisor with Notch to Accommodate Pin of Pontic



Proximal View *Palatal View*

Figure 4

Types of Abutment. The types of abutment and preparation, as used in the above examples will now be described.

Example (a). To replace 1|.

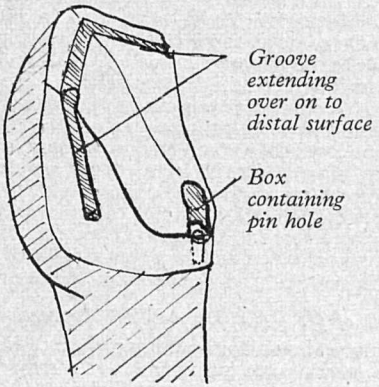
The main abutment is the pinledge preparation on the remaining central incisor. This preparation is illustrated admirably in Tylman[13] and the technique of cutting it, in detail. It is an extremely sound retainer both from an æsthetic and retention standpoint. For pins, platinised gold wire of suitable size is used. Impressions, etc., are taken as before and the gold pinledge backing constructed from them. Alternative preparations on the central incisor are also illustrated in Tylman[14].

The preparation in the 2| is not so difficult. A small box is cut on the mesial side of the tooth at a level just below the cingulum. An extension from the box stretches on to the palatal side of the tooth ending in a dovetail. A direct wax pattern is taken from this cavity and cast. In it is cut a small notch on the palatal extension to accommodate a pin from the pontic (see Figure 4).

Example (b). To replace 2|.

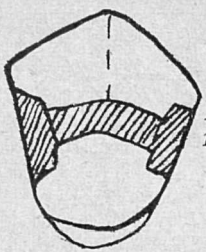
The main abutment in this case is the canine and the preparation the author favours is the three-quarter crown. Many such crowns are illustrated and described in Tylman. The form the author favours is cut as follows :— Slices are cut mesially and distally extending a minimum on to the labial surface. The palatal side of the tooth is reduced to allow for a thickenss of gold. Grooves are cut in the mesial and distal slices and extended to meet each other over the palatal surface just above the incisal edge (see figure 5).

Figure 5



The Three-Quarter Crown Preparation Cut on the Upper Canine Tooth

Figure 6



Occlusal View of Three-Quarter Crown on Pre-molar

To give extra retention a box is cut in the cingulum area and a pin-hole sunk. From impressions, etc., a three-quarter crown of great retention can be constructed. The preparation in the 1/ is similar to that described in the lateral incisor of example (*a*).

Example (*c*). *To replace* 3/.

The main abutment here is the adjoining pre-molar. Once again a three-quarter crown is favoured. Briefly it is prepared as follows :— The palatal cusp is reduced in height to be approximately 0·5 mm. free of the bite. Mesial and distal slices are cut and the palatal side of the tooth is rendered free of undercut. Small boxes are cut in the proximal slices and extended across the occlusal surface to meet each other (see figure 6). The occlusal surface of the buccal cusp is also reduced to allow room for a thin layer of gold to extend as far as the labial surface. Impressions, etc., are as before.

The preparation in the lateral incisor is once again for a small inlay.

In the above examples the movable joint consists merely of a slot cut in the smaller abutment inlay. In this slot a platinised gold pin, incorporated in the pontic, rests. This method is quite good functionally but there is a tendency for stagnation about the pin. A refinement of this joint is to make a small ball and socket type of preparation, the ball being on the pontic and fitting into a socket in the inlay. This is a much neater and cleaner job.

It is impossible to describe all the types of bridges that can be made. The author will, however, describe simple bridges he has constructed as examples.

1. *Replacement of* 2/. (*Mr. G., Aet.* 30, *A Schoolmaster*)

A three-quarter crown was cut on the 3/ as the main abutment and a small inlay cavity on 1/. Impressions were taken and the crown and inlay constructed. Upon the next visit these were tried in and a plaster impression taken over them. On removal the inlays came away in the plaster (to help accurate localisation in the plaster the small inlay should retain a small portion of the sprue). A fusible metal model was poured and the pontic carved up in wax on this model. A small slot was cut in the inlay and a piece of platinised gold wire warmed and pressed into the wax of the pontic so that it rested in this slot. The pontic was then completed in wax and cast upon the gold wire. (Opinions differ as regards the position of the pontic relative to the gum. Æsthetically it is much better in close contact with the gum. On the other hand a small gap does facilitate cleaning. It is strictly a matter of opinion.) The pontic was then soldered to the main abutment. Upon the next visit, the accuracy of the fit was checked and as it was satisfactory the facing was waxed on and processed in acrylic. The bridge was fitted at the next visit.

2. *Replacement of* 3/. (*Mr. D., Aet.* 20, *Apprentice*)

Upper /1 had moved mesially into the gap left by 1/ and was also proclinated. A jacket crown preparation was cut upon it as the major abutment, the position of the tooth being corrected by means of the crown. This made more room for the pontic. A small inlay was constructed in the 2/. The remainder of

the technique was as for the above. The finished result was a great success—proved, no doubt, by the fact that the patient acquired a fiancée shortly afterwards.

3. *Replacement of* /3. (*Mrs. J., Aet.* 29, *a visiting New Zealander*)

Upon examination /3 was missing, /4 was carious and in a badly rotated position of almost 90°. Upper /2 was extensively carious. First /2 was excavated and found to be exposed. It was immediately devitalised and a root dressing inserted in the canal. /4 was excavated and an amalgam filling inserted. Upon subsequent visits the root canal dressing in /2 was changed and eventually a root filling with zinc oxy-phosphate cement carried out. /4 was prepared to take a jacket crown and /2 to take a post crown. Impressions were taken and the crowns cast. These were tried in, a plaster impression taken over them and they were removed with the impression. A fusible metal model was poured and the pontic to replace the /3 constructed from it. This was then soldered to the jacket crown. Upon the next visit, the components were assembled in the mouth, a plaster impression taken over them as before and an investment model poured. The post crown was then soldered to the pontic. The completed gold work was checked in the patient's mouth, wax facings carved and acrylic facings processed. The end results were very pleasing and have since returned to New Zealand.

4. *The Restoration of* 1/ *in a Wide Gap.* (*Mr. R., Aet.* 29)

Owing to the width between the remaining central and the lateral, it was impossible to make a single tooth large enough to fill the gap without a very displeasing effect. A spring bridge was decided upon (an example is illustrated in Parfitt and Herbert[15]). 3/ was cut to carry a three-quarter crown. Impressions were taken and the crown made and tried in the mouth. As before a plaster impression was taken and the crown removed in it. A fusible metal model was poured and upon it the pontic and spring carved in wax. This was cast in one piece and soldered to the crown. At a subsequent visit, the gold was tried in and the facing waxed up and processed in acrylic. The spring was made long enough to be flexible, hence acting as a stress breaker. If so constructed, this can be an excellent lasting restoration.

The above few examples illustrate simple methods of replacing one or more anterior teeth. Needless to say there are many much more complicated restorations, e.g., see Tylman.

(ii) *Restoration of Whole Teeth by Dentures.*

Having considered the points enumerated above, it is usual in this country for a patient to have missing teeth replaced by means of a partial denture. The dentures fall into two classes—(*a*) The acrylic or vulcanite denture, and (*b*) The precision or cast metal base denture.

(*a*) *The Acrylic or Vulcanite Denture.* This is the most commonly used method nowadays, being quick, economical, serviceable and easy to repair. Mention should be made of the impression technique. In this country the commonest material used is an alginate (Zelex Plus) which when properly used gives a very accurate impression. Some operators, particularly in the U.S.A., favour a composition impression, Kennedy[16] going to great lengths to explain his technique. Having obtained impressions and records, shade and mould of tooth is carefully selected. Models are poured in a stone/plaster mixture and mounted on an articulator. The denture is then waxed up. In some cases it is better to make the teeth for the case and not use a manufactured mould. (A good technique is described by Jansen[17].)

Denture design. In the case of the solitary anterior tooth restoration there are two methods of dealing with the situation:—

(i) By the spoon denture, or
(ii) By a full plate.

(i) *The Spoon Denture.* This type of denture covers a minimum amount of the soft tissues of the mouth, leaving the tissues about the other teeth free and self-cleansing. Stileman[18] describes this denture and technique in detail. His article is well illustrated. Modifications of the spoon denture are described

by Stockman Vine[19]. It was formerly advocated by Osborne[20] that such a denture should carry a maximum of two teeth, but Anderson and Lammie[21] state that more recent dentures bearing up to four anterior teeth have been successful.

(ii) *The Full Plate.* This method ensures a better retention than the spoon because of the greater area of palate covered. When only one or two anterior teeth are replaced the plate usually extends as far back as the first molar. This method is advocated where the patient cannot control a spoon denture. It is, of course, a greater threat to the soft tissues.

Before proceeding to the second type of denture, mention must be made of the Immediate Restoration. This technique is described in detail by Arthur Allen[22]. From the point of view of the bridge prosthetist it provides an excellent stop-gap for the period between extraction and bridge preparation, as well as being convenient for the denture prosthetist.

As mentioned previously, when more than two anterior teeth are missing, the spoon type of denture is generally contra-indicated. This is for reasons of retention and stability, thus leaving the full plate method, the design of which rests with each individual case. Retention of such a denture is assisted by frictional force provided by the standing teeth and sometimes by clasps. A variety of clasps and their uses is described by Kennedy[23].

(*b*) *The Precision or Skeleton Denture.* Fenn's definition helps to differentiate between a bridge and a skeleton denture. He states : " A bridge is a bridge when the restoration occupies no more room than did the original teeth. Anything else is a denture."

As the name implies, this type of denture is an accurate precision casting of a cast noble alloy (recently the chrome cobalt alloys have become obtainable in this country). The technique calls for an extremely accurate impression (Zelex suffices), from which a master model is made. After surveying, the denture can be designed and waxed upon the model. The wax is carefully lifted off by sprues, invested and cast. An alternative method is to make a duplicate model from the master model by taking a further Zelex impression of it. An investment model is then poured and the gold wax-up done on it. This is then invested and the base cast.

Design, once again, depends upon the case. Kennedy[24] has evolved an elaborate classification for partial dentures and a corresponding design for each class. In many of these classes one or more anterior teeth are missing and are incorporated in his design. The saddles carrying the teeth are usually of acrylic resin and are processed on to the gold casting.

Finally, to close this thesis the author wishes to illustrate how the restoration of the anterior teeth can be carried out by a combination of some of the methods described.

Mr. T., Aet. 40. The patient presented himself with a partial cleft palate. The only teeth standing in the upper jaw were 3̲2/3̲6̲. These were carious and over-erupted owing to the nature of his bite (markedly Angle Class III). The teeth appeared as shown in *Figure* 7. First all the fillings were completed, and to get a good æsthetic result the author placed a jacket crown on the 2̲/

Figure 7

Mr. T. Restoration of Anterior Teeth

(*a*) *Before Treatment*

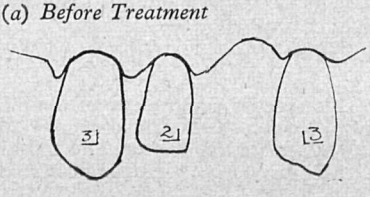
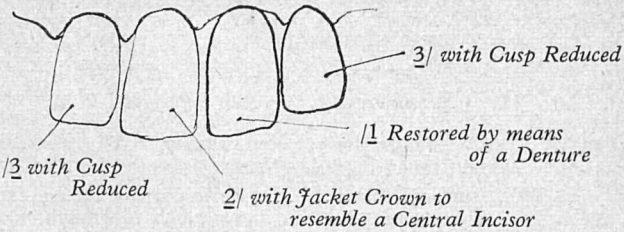


Figure 7. (*b*) *After Treatment*



The remainder of the Dentition was, of course, also completed by the Denture.

to give it the appearance of a 1/. ground down the cusps of the canines and restored the gap with a central incisor on an obturator. This resulted in an improvement which delighted the patient (*see Figure* 7).

SUMMARY

In covering this subject the author has attempted to :—

(*a*) Discuss the filling materials he would use in certain situations.
(*b*) Describe simple crowning methods, in particular those he favours.
(*c*) Describe simple bridges with particular emphasis on those bridges with which he has had experience.
(*d*) Describe the various methods of replacing teeth by means of dentures.

A dental student during his clinical career at Guy's Hospital is encouraged to practice all these methods.

BIBLIOGRAPHY

1 PARFITT & HERBERT (1948). *Operative Dental Surgery*, p. 234 et seq. Edward Arnold & Co., London.
2 „ „ „ „ „ „ „ p. 207 et seq.
3 „ „ „ „ „ „ „ p. 189 „ „
4 „ „ „ „ „ „ „ p. 265 „ „
5 „ „ „ „ „ „ „ p. 320 „ „
6 SKINNER (1947), p. 181 et seq. W. B. Saunders Co., Philadelphia.
7 MANLEY, E. B. (1936. *Brit. Dent. J.*, **60**, 321.
„ „ (1943). *Proc. Roy. Soc. Med.*, **36**, 488.
8 MCLEAN (1950). *Brit. Dent. J.*, **89**, 215.
„ (1952) „ „ „ **92**, 255.
CUTLER (1951) „ „ „ **90**, 217.
„ (1952) „ „ „ **92**, 67.
9 DILLING & HALLAM (1946). *Dental Materia Medica*, p. 111. Cassel & Co., Ltd., London.
10 TYLMAN (1947). *Crown & Bridge Prosthesis*, p. 525. Kimpton, London.
11 „ „ „ „ „ „ p. 523 et seq.
12 LAWTON & MYERS (1951). *Brit. Dent. J.*, **91**, 181.
13 TYLMAN (1947). *Crown & Bridge Prosthesis*, p. 374. Kimpton, London.
14 „ „ „ „ „ „ p. 365 et seq.
15 PARFITT & HERBERT (1948), p. 302. Edward Arnold, London.
16 KENNEDY (1947). *Partial Denture Construction*, p. 38 et seq. Dental Items of Interest Publishing Co. Inc., New York.
17 JANSEN (1951). *Brit. Dent. J.*, **91**, 17.
18 STILEMAN (1951). *Brit. Dent. J.*, **91**, 294.
19 STOCKMAN VINE (1951). *Brit. Dent. J.*, **91**, 66.
20 OSBORNE (1950). *Dent. Mech. for Students*, p. 144. Staples Press Ltd., [London.
21 ANDERSON & LAMMIE (1952). *Brit. Dent. J.*, **92**, 62.
22 ALLEN, A. (1952). *Brit. Dent. J.*, **92**, 212.
23 KENNEDY (1947). *Partial Denture Construction*, p. 276. Dental Items of Interest Publishing Col Inc., New York.
24 KENNEDY (1947). *Partial Denture Construction*, p. 3. Dental Items of Interest Publishing Co. Inc., New York.

Letting Children Face Facts

By EMILY MACMANUS, C.B.E., S.R.N., S.C.M.
Matron, Guy's Hospital 1927–1946

A talk broadcast on 19th September, 1952

NOW, I can hear numbers of people saying, " What nonsense ! Children know far too much nowadays, almost nothing is hid from them."

Well, I accept that criticism, but only to a certain extent, and here is my reply. First, some children know much too much, too early, about what are called the " facts of life ", and often they have learnt in the wrong way, so that they are either excited and blatant about their knowledge, or excited and secretive. By the " facts of life " most people mean details of procreation, which is a limited subject. By the facts of life I mean the many facts as far as we know them that encircle life itself—our arrival, our existence, our progress through the world and our death. And our death, our ultimate end in this world, is the most important subject that we will ever have to think about. Some mothers and fathers shy away from it, and put their children off with vague answers when they ask questions. I wonder if that is because these parents have never wanted to think deeply about life and death themselves and really don't know what to say when their children come to them ?

" Look, there's a little dead bird on the path ! "

" It's only asleep, darling, it will wake up in a moment ! " Then, aside to me, " Don't talk about death, she is too young to understand it."

Now, *why ?* That little girl would perfectly understand and accept the fact of the dead bird if her mother had talked sensibly and simply to her. This happened long ago.

A year or two ago the same girl, now grown up, said to me—" I never read sad books : no, I don't like reading war news, it is better not to know about horrors or tragic things or destitute people ; I can't *do* anything, and it upsets me."

What sort of a citizen is this girl going to be ; what sort of a wife ; what sort of a mother ?

For all these happenings—gay and sad—make up life. We cannot avoid them all the time. Isn't it far better, while we are still young, to have our eyes opened by loving people in whom we have confidence, to the many different aspects of life, and to get a clear picture of the rough and the smooth paths that people have to tread as they live their lives ? School teachers, please don't think that I am belittling your good work when I say that wise, loving mothers and fathers are surely the best people to do this.

But how many of us *are* wise, loving fathers and mothers ? Thousands are, of course—but equally, of course, thousands of parents are not wise ; loving—yes, but perhaps a little cowardly.

" I see Maud is going to have another baby, Mrs. Smith ", I remarked the other day to an old friend of mine in a cottage, whose married daughter lived with her.

" I couldn't say ", she replied. " I never speak to her of such things."

I like old Mrs. Smith very much ; a practical, sensible soul in a general way, so I asked her *why* she couldn't talk to her own daughter.

" No," she said, shyly and awkwardly, " we never did talk of those things in my young day, and I can't bring myself to it." And Maud had grown up and got married and had three children and never spoken one word on this big subject with her mother. Now her three little boys are going to school ; will they ever ask their mother anything, or will they only learn in a secretive way about boys and girls, sex and mating ?

Country children have one advantage over many town children. The mating of animals and the birth of young animals is such a common occurrence

that they take it calmly. Death too. I remember in a remote district a still-born baby being carried in a wrapping by his elder brother and some of his fellows, to the unconsecrated part of the cemetery, where they buried the little mite as you might bury a dead canary. And, afterwards, the boy talked so calmly to me about it. The little thing had never drawn breath, it had to be buried, and the father was old, so the lad had undertaken to do it for his mother.

What a difference between this boy and the girl who was not allowed to know that a small bird was dead !

My critics will say " That's all very well but children are constructed differently ; my child has nerves, she is sensitive, the least thing upsets her ! She *needs* to be protected."

Yes, she needs to be protected ; I agree. But what *kind* of protection ? Are you going to be at her side all her life ? No, you are not. Will she never have to face things alone ? Of course she will. So it is no use wrapping her up in mental cotton wool. She must grow her own protection from within: by strengthening her spirit, by learning to take things calmly—and don't forget the cultivation of that valuable gift a sense of humour which can sweeten all our lives. With this armour, the sensitive child—and indeed any grown-up person too can meet her " nerves " and put them in their place. They have a place ; it is good to be sensitive, aware, alert, easily moved to pity or disgust or righteous anger. These qualities have inspired men and women to fight social wrongs, to move mountains, to abolish the slave trade, to get rid of child labour in mines and mills, to take away tiny children from the rug-makers' looms in countries like Persia and India. Sensible, sensitive people fight against cruelty to animals and in a hundred ways help humanity.

For this kind of sensitive person is also filled with common sense. He has his nerves under control and he learnt this when he was young.

It is so important that a child be brought up in an atmosphere of love and naturalness and sincerity in a home where between his parents confidence reigns.

Have you read " National Velvet " by Enid Bagnold ? Or seen the film ? The story is of a sensitive little fourteen-year-old girl, Velvet Browne, a butcher's daughter on the south coast who loved horses and won a wild piebald horse in a village raffle ; she tamed him and trained him, and, dressed as a boy, she rode in and won the Grand National. A lovely, fantastic, exciting story ; but it is not of the story that I want to speak, but of the picture that the author gives of the Browne family. It will show you a picture of the kind of family life, family atmosphere, that I am trying to describe, where children can grow and flower each according to his or her nature aware of life, and unafraid of life. You can see it in many a house, rich or poor. It is the sincerity that counts.

When I was a little girl, my father used to take me driving round in his one-horse brougham as he visited his patients. On several mornings we stopped at a corner house over a shop, near the common. The little boy inside had diphtheria. At first he was very ill, then he was getting well. I almost seemed to know him as my father talked about him. Then, one day, we did not stop at the house, and my father told me that the little boy was dead. He sat up suddenly in excitement when somebody brought him a present, and his heart failed. And my father talked to me quietly of the strain that some illnesses put upon the heart, and he talked too, of death itself, and how we must all pass through the door from this world to the next when the time comes. Somehow, sad and surprised as I was, I wasn't frightened. But to this day I can remember that talk.

We must give truthful and simple answers to children's questions and never let them feel that they ought not to have asked. If we do they will either ask elsewhere or they will bottle up an embarrassment which may do them harm for years, and—we shall have lost their confidence. Wise words are good ; the example of love and confidence between father and mother will work wonders for the children, even without a word being spoken.

Guy's Hospital Music Club

CHRISTMAS CONCERT

FOR their concert on December 11th Guy's Hospital chose Purcell's *Dido and Aeneas* as the *pièce de resistance* of the evening, but any resistance which this by no means easy work may have offered to the performers was in the event triumphantly overcome. This followed Stanford's splendid arrangement of the National Anthem with which they did well to start their programme, since even in the absence of brass this is still the most satisfactory version, having more vitality than Elgar's. For *Dido and Aeneas* the Hospital contributed a well-balanced team of witches and sailors, etc., who acquitted themselves with credit in all their various rôles. Their attack was generally good, if at times a little over-eagerness might be detected, and in the particularly difficult " Ho ! Ho ! " choruses the choir achieved most praiseworthy precision a policy of safety first in the matter of speed. In the final chorus it might perhaps be objected that they allowed their wings to droop a trifle heavily, but this is difficult to avoid if this chorus is taken as slowly as it was.

Finally, the choir deserve praise for their diction which was admirable, even though to some it might seem to have been wasted on Nahum Tate. To those, on the other hand, who revel in the pathos of some of his effects—if for no other reason—there was cause for regret that the choir sang from the Novello edition, in which in the sailors' song the word " boosey " is, so to say, watered down to "bowsey", though the latter is no doubt strictly correct since the word appears to have been used at that time by poets to rhyme with " lousy ".

Amongst the well-chosen group of soloists Miss Elizabeth Humphreys gave as good a performance as one had a right to expect from a Dido suffering from the effects of a cold. In the other name part Mr. Geoffrey Ward realized the drama of the rôle in magnificent baroque style ; in his acceptance of Jove's command at the end of Act II his defiant tones must have shaken at least " the gods " in the upper tier of the theatre. But perhaps the most musical performance of the evening was given by Miss Patricia Clark as Belinda and in some of the other minor supporting parts. Miss Ida Pool made her Sorceress suitably awe-inspiring.

The second half of the programme was opened by the string orchestra, an amalgum of professionals and friends of the Hospital, with a performance of Bach's 4th Brandenburg Concerto, in which the soloists were Mr. Wilkinson, violin, and Messrs. Bradley and Wilson, flutes. Their ensemble was generally good except in the last movement where the impetus of the first theme at times ran away with some of them.

To complete the programme the choir combined enterprise with traditional acknowledgment of the season by giving a performance of Bruce Montgomery's modern setting of six old carols with orchestral accompaniment and piano obligato, played with splendid brio by Mr. Geoffrey Baker. These settings, rather too complicated to be altogether satisfactory as carols, were certainly not easy to sing, and the choir did themselves honour by performing them as well as they did and especially in keeping their pitch so successfully.

Choir and orchestra were once more under the successful conductorship of Mr. James Gadden, to whom the Music Club is grateful for his patience and enthusiasm.

C.M.W.

CORRESPONDENCE

LETTERS TO THE EDITOR OF THE GAZETTE

Whooping Cough

SIR,—When I first read Dr. Mac Keith's reply to my letter on whooping cough mortality I am afraid I rather regarded the illustrations as graffiti, a little out of place in a serious letter ; and Mr. Layton's outburst surprised me and drew my attention to them again, when a new and rather sinister lesson appeared. Three children in these pictures are represented in bed, and as we all know, bed is the last place where whooping cough cases should be. They should be as long as possible in the fresh air. Perhaps these graffiti may provide us with some clue to the high mortality after all, and be not without their value.

Yours, etc.,

P.O. Box 642,
Pietermaritzburg,
Natal, S. Africa.

GEOFFREY DUNDERDALE.

SIR,—I regret I am late in joining in the discussion on " Whooping Cough ". Dr. Mac Keith says I call it an " inevitable " disease, and Mr. Layton says I call it a " compulsory " disease. I have also strongly advocated that it joins the list of preventable diseases and as long ago as 1936 advocated four preventive inocculations at monthly intervals. When I used the phrase " inevitable disease " I always qualified it by saying it was an inevitable infection in the unvaccinated and heaven help me if I ever said it was compulsory, but I will join Dr. Mac Keith and say it is terrible and killing. When a child has the disease and we are trying to cure it then it is right to help the mother and allay her fears as much as possible, but let us have no appeasement at other times. Let us say that 525 deaths is terrible, especially when that figure can be cut to a fraction.

Vaccination early in life is now the chief means, for already the amelioration of social conditions has done much to reduce the morbidity and mortality. Whooping cough, like measles in well nurtured children, is no longer a catarrhal disease. Isolation of early cases is important especially if they are likely to infect younger sibling. Every child under two is highly vulnerable to whooping cough for the mortality is chiefly in these first two years of life.

Dr. Mac Keith uses visual methods for teaching. Provided these are not used when words serve our purpose better, I am all in favour of this variation and I would suggest adding the oral. I recently heard a gramophone record of a child's whooping which was realistic, but the traditional whoop is fast disappearing and we should learn to recognize the short series of coughs which gradually increase in frequency and number and may perhaps end in whooping or in vomiting. In one epidemic a nurse was able to pick these out from the ordinary coughs with unfailing regularity although very few even whooped, but all had hæmophilus pertussis in the droplet spray as evidence by cough plate cultures. This showed also their danger as infectors.

For success in preventive medicine we must have an informed public opinion and this implies understanding the risks. It is our duty to give the facts and advice on what action should be taken to prevent disease.

Yours, etc,.

R. E. SMITH.

P.S.—Since writing this letter I have looked up the notifications of whooping cough in 1951, and I find that, to the nearest thousand, there were 15,000 notified under 1 year, 43,000 from 1 to 2, 52,000 aged 3 to 4, 55,000 aged 5 to 9, 3,000 aged 10 to 14, 600 aged 15 to 24 and 1,500 over 25. Yet when I look at the mortality there are 277 deaths under 1, 106 from 1 to 4, and 8 from 5 to 14. The mortality in those under 1 is nearly 2 per cent. which I think is terrible.—R.E.S.

Hill House,
Rugby.

This correspondence is now closed.—EDITOR.

REVIEWS

Hale-White's Materia Medica, Pharmacology and Therapeutics. By A. H. DOUTHWAITE, M.D., F.R.C.P. 29th Edition. Churchill. *Price* 20*s.*

Unlike so many textbooks on the subject, " Hale-White " cannot be charged with being too academically pharmacological on the one hand or too dogmatically therapeutic on the other. Successive editions over a course of sixty years have, to quote from the present author's preface, " witnessed the slow emergence of therapeutics from the empirical to the rational ", and this 29th edition truly reflects both the principles of the first author and the ever-accelerating progress in applied pharmacology at the present time. If not exactly a readable book, it is nevertheless an invaluable " aid " to the student and practitioner and, above all, to the " take-in " houseman. Extensive in its scope, as the hallowed title implies, it gives a brief account of the official nomenclature, the pharmacology, the indications, the possible toxic effects and, wisely, the dosage, of almost every drug likely to be used in practice—and many more besides.

Criticisms, then, are few. But admitting the need for keeping the volume small and handy, surely the format could be improved by a division into chapters, according to " groups ", without very much waste of space ? The heading types, too, might be more happily selected. Quite frequently they appear as footnotes to preceding sections, rather than as titles to what is to follow.

Finally, in minor matters of fact, there are small points with which one might disagree. To list them though, would be to come dangerously near carping. In all, this is a book to be recommended and very good value for 20*s.*

R.G.

Physiology for Dental Students. By D. J. ANDERSON, M.Sc., B.D.S. Arnold. *Price* 30*s.*

The author maintains that the special requirements of dental students are not met by texts written for the medical curriculum ; he thus aims to present to the dental student a balanced account of physiology without burdening him with more detail of organs and systems than is relevant to his future work.

In place of the conventional approach to the subject the matter has been arranged to illustrate Claude Bernard's dictum, " La fixité du milieu intérieur est la condition de la vie libre ". In a book written at this level (and without many cross references) it is impossible to avoid a disjointed account, over simplification, and some repetition. The particular method of treating the subject adopted here tends to aggravate these tendencies, as does the style of writing, in many places too slip-shod for a work intended for university students. In contrast to the text, the majority of the figures, tables and diagrams are excellent, and are a refreshing change from the limited stock we have grown to accept in previous physiological texts dealing with the same range of subjects. But their distribution, like that of the emphasis laid on topics treated in the text, is unbalanced. For example : the chapters on the brain, and on pain and anæsthesia need diagrams before they will strike home to the average student ; on the other hand, three diagrams on page 25 seem superfluous for students who have already studied biology.

Whereas the normal range for certain values is given in the course of the text, no discussion of elementary statistical concepts is given so that the student may appreciate what the term " normal range " implies. More examples could also have been selected from the field of dentistry to illustrate general physiological principles ; for example : isometric contraction of jaw muscles in clenching the teeth in preference to a description of the frog nerve-gastrocnemius muscle preparation. Discussions on the mechanism of vomiting and on the production of cyanosis, both relevant to the future work of the dental student, are among the topics omitted ; yet a definition of the international unit of heparin has been included.

This book would be greatly improved by the addition of more cross references, but even then it would not provide a balanced account of physiology for the dental student in a form which he would readily assimilate. It cannot therefore be recommended as being superior to other texts already available.

P.H.S.

SPORT

ASSOCIATION FOOTBALL

Southern Amateur League

Division III. Senior Section

Guy's 1st XI *v.* National Provincial Bank

Away. Result : Lost 2—5
15th November, 1952

Guy's 2nd XI *v.* Kew Association 2nd XI

At H.O.P. Result : Won 4—1
22nd November, 1952

Friendly Match

Guy's 2nd XI *v.* Brentham 2nd 3rd XI

At Brentham. Result : Won 3—1
29th November, 1952

Friendly Match

Guy's 3rd XI *v.* Crouch End Vampires

At H.O.P. Result : Lost 1—6
29th November, 1962

HOCKEY

Guy's 1st XI *v.* South Essex 1st XI

At Harold Wood. Result : Won 4—2
13th December, 1952

Guy's visited Harold Wood and won a scrappy game against South Essex by 4 goals to 2. Due to the Essex *v.* Herts. game, which was also being played at Harold Wood, the Hospital game began at 2 p.m. on a very damp, fog-enshrouded pitch. South Essex were without Coggins their Irish centre-forward and Guy's were without Linahan their fast centre-half, both of whom were playing for Essex.

From the bully off the Hospital attacked and were awarded two penalty corners, from the second of which Millar scored. Soon afterwards the same player put the Hospital further ahead when he pushed a rebound into the net. At this stage the Hospital were playing good hockey. The defence was intercepting well, hitting cleanly and keeping their forwards well supplied with passes.

Cooke on the right wing made several good runs, and from one of his passes the South Essex keeper did well to save a very hard drive from Willis.

South Essex now broke through the Guy's defence and were rewarded with a good goal. Soon afterwards Guy's went further ahead when Willis, following a through pass from Paul, passed to Millar who, standing unmarked, scored an easy goal.

After half time the game became scrappy, this was due to the ground which by this time had become very cut up and its condition made good hockey impossible. Paul scored the Hospital's fourth goal with a hard shot which gave the keeper no chance. South Essex now staged a rally and were able to score a further goal before the final whistle went.

Scorers : Millar 3, Paul 1.

Team : C. H. Bishop ; J. J. Hall, H. M. Tuddenham ; K. Tyrer, R. W. Elsdon-Dew, W. R. O. Eggington ; N. H. Cooke, R. R. Paul, M. Willis, J. I. Millar, J. S. Partridge.

Other Results :

Guy's 2nd XI *v.* South Essex 2nd XI
Result : Lost 3—7

Guy's 3rd XI *v.* T. Walls & Sons Ltd. 1st XI
Result : Lost 0—6

Hockey Results (continued)—

Guy's 2nd XI *v.* Merton 2nd XI
Result : Won 2—1

Guy's 3rd XI *v.* Merton 3rd XI
Result : Lost 1—2

LADIES' HOCKEY

Guy's 1st XI *v.* St. Mary's Hospital
At H.O.P. Result : Won 5—1

Guy's 1st XI *v.* Dartford Physical Training College
At Dartford. Result : Lost 0—6

Guy's 1st XI *v.* Royal Free School of Medicine
At H.O.P. Result : Lost 1—2

BOXING

On Friday, December 5th, the Guy's team boxed against Birmingham University, the match taking place in the Pavy Gymnasium. In one respect the event was disappointing in that Birmingham could only provide six members as a *pièce de resistance* and that one of the six wilted 'neath the medical examination—thus leaving five.

However, it was most encouraging the way the Guy's boxers gave account of themselves, winning all five contests. This was a very stimulating preliminary to what is probably the Club's major fixture, viz., against Trinity College, Dublin, which takes place in the Pavy Gymnasium at 6.30 p.m. on 15th December, 1952. Also it was pleasant to see a few supporters, but the accent is still on the " few ".

Contests

LIGHT HEAVYWEIGHT

D. Lipington (Guy's) *v.* P. Beech

This was a very fine contest and Beech put up a good show against his more experienced and skilful opponent. Lipington took one hard right in the second round but was quick to shake off the effects and apart from this was never in difficulty. He outboxed Beech and by using a stinging left jab considerably wore him down.

Verdict : Lipington winner on points.

MIDDLEWEIGHT

A. Atkinson (Guy's) *v.* P. McSherry

McSherry opened by throwing some very powerful punches but they were rather wild and Atkinson had no difficulty in evading them. Atkinson then countered and landed three short rights to McSherry's face, and as an after-thought added one more on the break away. The " after-thought " proved somewhat disastrous, McSherry taking the count and the referee stopping the contest.

Verdict : Atkinson winner, referee stopping contest in first round.

C. Wallace (Guy's) *v.* C. West

West commenced at a pace that would have done credit to a 100% fit lightweight, throwing a barrage of rights and lefts from all angles, but Wallace was not flurried by his opponent's adrenergic assault, rather he put up a passive defence and allowed West to expend his energy. This policy had its dividends in the second round when Wallace did the attacking against a now slower opponent, and succeeded in landing heavy blows, especially to the body, and putting him down for two counts of seven and six

Boxing (continued)—
respectively. West took a third count and here the referee intervened, declaring Wallace the winner at the end of the second round.

WELTERWEIGHT

J. Lux (Guy's) *v.* M. Woodrow

Lux showed himself to be a greatly improved boxer and was constantly on the attack. His opponent being a novice did not provide much opposition but what little there was Lux met with supreme confidence.

Verdict: Lux winner on points.

J. Allardice (Guy's) *v.* G. Anthony

Allardice has developed into a formidable boxer. From the first bell he asserted himself and always carried the fight to his opponent; his many two-fisted attacks forced Anthony to crouch and cover up—a position retained until respite was granted.

Verdict: Allardice winner on points.

To end the match an exhibition bout was boxed by the Guy's Captain and Secretary (*Wilfred Watson and T. Magor Winstanley*).

HOSPITAL INFORMATION

CHRISTMAS, 1952

PRINCIPAL SERVICES IN THE CHAPEL

Monday, December 22nd : 8.30 p.m.
Service of Lessons and Carols.

Tuesday, December 23rd : 9.15 p.m.
Preparation for Holy Communion.

Wednesday, Christmas Eve : 11.40 p.m.
Procession, Blessing of the Crib, Mass of Midnight with Holy Communion.

Christmas Day : 7.0 a.m.
Holy Communion.

Friday, St. Stephen, Martyr
Saturday, St. John, Evangelist } 7.0 a.m.
Holy Communion.

On Sunday, December 28th, Feast of the Holy Innocents, the Guy's choir which sings on the 22nd, will sing a service of carols at 6.30 p.m. in SOUTHWARK CATHEDRAL. There will be a short address by the Provost of Southwark.

Details of other services will be found on the posters in the hospital.

DENTAL SOCIETY

The Annual Dental Clinical Meeting will be held in the Dental Department on Saturday, 7th March, 1953, and the Dental Society Dinner will be held in the evening. A detailed programme of the Meeting will be published in the *Gazette* on 6th February, 1953, and notices regarding the Dinner will be circulated in the near future.

PASS LIST

ROYAL COLLEGE OF SURGEONS OF ENGLAND

L.D.S.

November, 1952

Anatomy and Physiology

N. B. Athill	K. J. Morison
N. W. V. Bryan	Moira M. Murphy O'Connor
W. H. Gibson	J. Neave
J. F. Groves	D. A. Rees
Annie Hanegraaff	E. J. Taylor
Monica R. Lang	I. W. Torry
D. C. Lee	P. B. Webb
L. B. Lux	S. E. Sorabjee
G. L. Lyne	

Special Anatomy and Physiology

N. B. Athill	G. L. Lyne
N. W. V. Bryan	J. Neave
W. H. Gibson	D. A. Rees
J. F. Groves	E. J. Taylor
Annie Hanegraaff	I. W. Torry
Monica R. Lang	P. B. Webb
D. C. Lee	N. A. Labuschagne

PAPERS BY GUY'S MEN

Counsell, P. B., and another. The Surgical Treatment of Ulcerative Colitis. *Lancet*, 1952, ii, 1045.

Earl, C. J., and Thompson, R. H. S. Cholinesterase Levels in the Nervous System in Tri-*ortho*-cresyl Phosphate Poisoning. *Brit. J. Pharmacol.*, 1952, **7**, 685.

Herbert, W. E. Temporary Discolouration of a Tooth following Injury. *Brit. Dent. J.*, 1952, **93**, 293.

McLean, John W., and another. A Clinical and Pathological Evaluation of a Sulphinic Acid Activated Resin for Use in Restorative Dentistry. *Brit. Dent. J.*, 1952, **93**, 291.

Witts, L. J. The Liver and Advances in Nutrition. *Conquest*, 1952, **40**, 9.

CHANGES OF ADDRESS

J. W. Goodfellow, Lt., R.A.M.C., The Officers' Mess, 14/20th King's Hussars, M.E.L.F. 1.

G. E. Griffiths, M.B., B.S., D.C.H., Chippenham House, Monmouth.

T. E. Oppé, M.B., B.S., M.R.C.P., 81, Lee Road, Blackheath, London, S.E.3. Tel. Lee Green 9082.

A. H. R. Rowe, B.D.S., 19, Honor Oak Rise, London, S.E.23.

Kenneth Wilson, F.R.C.S., "Fallowfield", Hillbury Road, Warlingham, Surrey, and 62, Queen Anne Street, Cavendish Square, W.1. Tel. Upper Warlingham 2558 and Welbeck 8626.

Selwyn Holms, L.D.S., R.C.S., 100, Harley Street, W.1. Tel. Welbeck 6345.

BIRTHS

BAILEY.—On 2nd December, 1952, at Lee, S.E.12, to Marguerite, wife of W. J. Bailey, B.D.S., L.D.S., R.C.S.—a sister for Nigel John (Isobel Michal Ysanne).

GARDENER.—On 13th November, 1952, at Ridge, Wareham, to Kathleen, wife of P. A. Gardener, L.D.S., R.C.S.—a brother for William and Stephanie (Jack).

NICHOLSON.—On 9th December, 1952, at Princess Christian's Nursing Home, Windsor, to Dorothy Christine (née Clark), S.R.N., wife of Nigel Geoffrey Nicholson, M.B., B.S.—a daughter (Susan Penelope).

PHILLIPS.—On 19th November, 1952, at B.M.H. Wappertal, B.A.O.R. 9, to Lois (née Wolley), wife of A. R. Phillips, Lt., R.A.M.C.—a son (Simon).

EDS. { E.E.D.T. R.D.W.